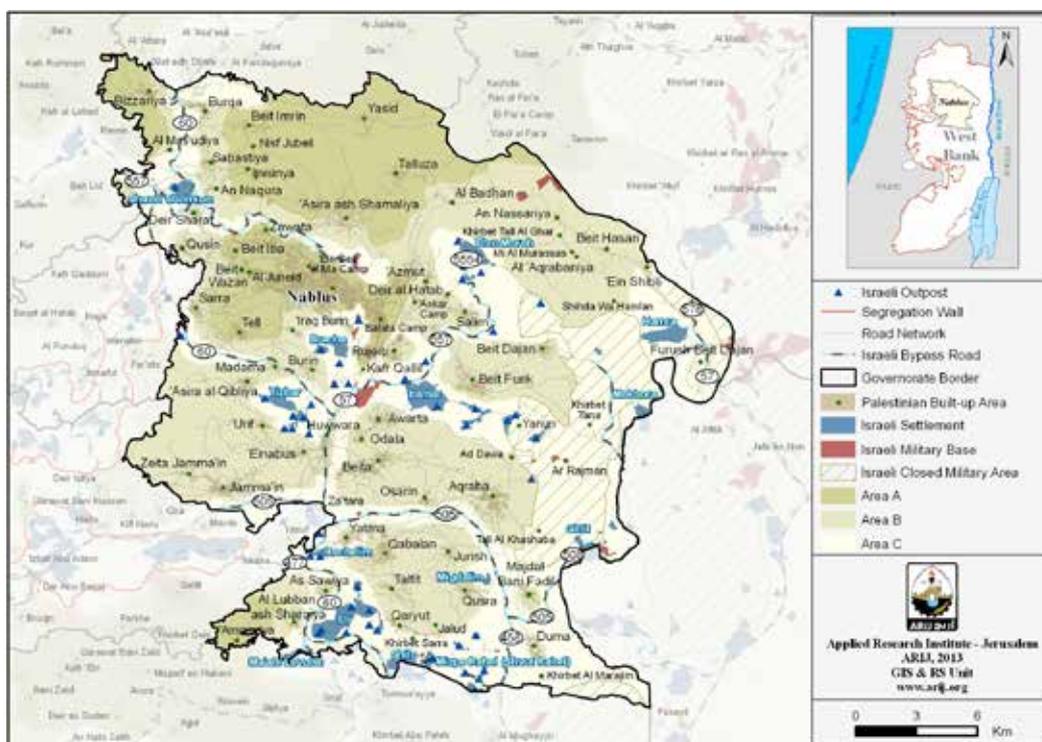


# Locality Profiles and Needs Assessment in the Nablus Governorate



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***PART ONE***  
***Introduction***

This study comes as a result of a comprehensive analysis of all localities in the Nablus Governorate. It aims at depicting the overall living conditions in the region along with presenting plans to assist in developing the local populations' welfare and livelihoods. This has been accomplished through the 'Village Profile and Needs Assessment in Nablus, Qalqilya and Salfit,' a project funded by the Spanish Agency for International Cooperation for Development (AECID).

## **1.1. Project Description and Objectives:**

The 'Village Profile and Needs Assessment in Nablus, Qalqilya and Salfit' was designed to study, investigate, analyze and document the socio-economic conditions in each of the aforementioned regions. On the basis of this investigation, resultant programs and activities necessary to mitigate the impact of the current insecurity of these conditions were formulated and presented in this integrated report. In undertaking this, there has been a particular focus on water, environment, and agricultural issues in the region.

## **1.2. Project Activities**

### **1.2.1. Data Collection**

#### ***Demographic profiling: a consideration of border demarcations***

During the methodological design of the project, the selection of regions and localities from which data would be retrieved was an essential consideration. All localities included within Nablus Governorate according to various set administrative boundaries were selected to be targeted for the study. There are three different historical administrative boundaries for the Palestinian territory:

- i. The borders drawn by the British Government in 1922 during the 'Mandate Period.'
- ii. The physical classifications adopted by the Palestinian National Authority (PNA) in 1994.
- iii. The 'Integrated Physical Classification System' developed by the Palestinian Ministry of Planning, the Ministry of Local Government, the Palestinian Central Bureau of Statistics (PCBS), and the Central Election Commission (CEC).

In all profiled localities the 'Integrated Physical Classification System' (IPCS) was chosen for boundary demarcation and subsequent data collection. This was done so on the grounds that these delineations are comparatively recent and are used in national data collection projects by bodies such as the PCBS, and are deemed the most suitable for a surveying project and research purposes reflective of the current Palestinian context.

In terms of land coverage, the Nablus Governorate spreads across 43,909 dunums of land classified as 'built up areas.' Up to 28,432 dunums of these are Palestinian built up areas, whilst the remaining 15,382 dunums are classified as Israeli settlements and Israeli Outpost (ARIJ – GIS Unit, 2013). According to the aforementioned Palestinian integrated physical classification system, the Nablus Governorate was divided into 64 localities, which are identified under 52 main administrative boundaries. These boundaries are further classified into three main administrative regions: those run by Municipal councils and Village councils. See Map 1 for a presentation of the different administrative boundaries by location and council.

Table 1: Name of surveyed localities by type, population number and administrative body

Administrative Locality	Population	Type	Type of Administration
Al 'Aqrabaniya	1,001	Rural	Village Council
Al Badhan	2,485	Rural	Village Council
Al Lubban ash Sharqiya	2,767	Rural	Village Council
An Naqura	1,545	Rural	Village Council
An Nassariya	1,585	Rural	Village Council
Aqraba	8323	Urban	Municipality
As Sawiya	2,393	Rural	Village Council
'Asira al Qibliya	2,366	Rural	Village Council
'Asira ash Shamaliya	7,556	Urban	Municipality
'Awarta	5,623	Rural	Village Council
'Azmut	2,650	Rural	Village Council
Beit Dajan	3,485	Rural	Village Council
Beit Furik	10,339	Urban	Municipality
Beit Hasan	1121	Rural	Village Council
Beit Iba	3150	Rural	Village Council
Beit Imrin	2,821	Rural	Village Council
Beit Wazan	1057	Rural	Village Council
Beita	9123	Urban	Municipality
Bizzariya	2,252	Rural	Village Council
Burin	2309	Rural	Village Council
Burqa	3,670	Rural	Village Council
Deir al Hatab	2213	Rural	Village Council
Deir Sharaf	2460	Rural	Village Council
Duma	2,099	Rural	Village Council
'Ein Shibli	335	Rural	Village Council
'Einabus	2340	Rural	Village Council
Furush Beit Dajan	769	Rural	Village Council
Huwwara	5570	Urban	Municipality
Jamma'in	6225	Urban	Municipality
Jurish	1400	Rural	Village Council
Kafr Qalil	2451	Rural	Village Council
Madama	1754	Rural	Village Council
Majdal Bani Fadil	2382	Rural	Village Council
Nablus City	156,965	Urban	Municipality
Odala	1,135	Rural	Village Council
Osarin	1612	Rural	Village Council
Qabalan	7,130	Urban	Municipality
Qaryut	2785	Rural	Village Council
Qusin	1709	Rural	Village Council
Qusra	4,377	Rural	Village Council
Rujeib	4202	Rural	Village Council

Sabastiya	3513	Urban	Municipality
Salim	5,062	Rural	Village Council
Sarra	2562	Rural	Village Council
Talfit	2,824	Rural	Village Council
Talluza	2375	Rural	Village Council
Tell	5112	Rural	Village Council
'Urif	2,921	Rural	Village Council
Yasid	2,084	Rural	Village Council
Yatma	2853	Rural	Village Council
Zawata	1875	Rural	Village Council
Zeita Jamma'in	2115	Rural	Village Council

### 1.2.2 Data Analysis

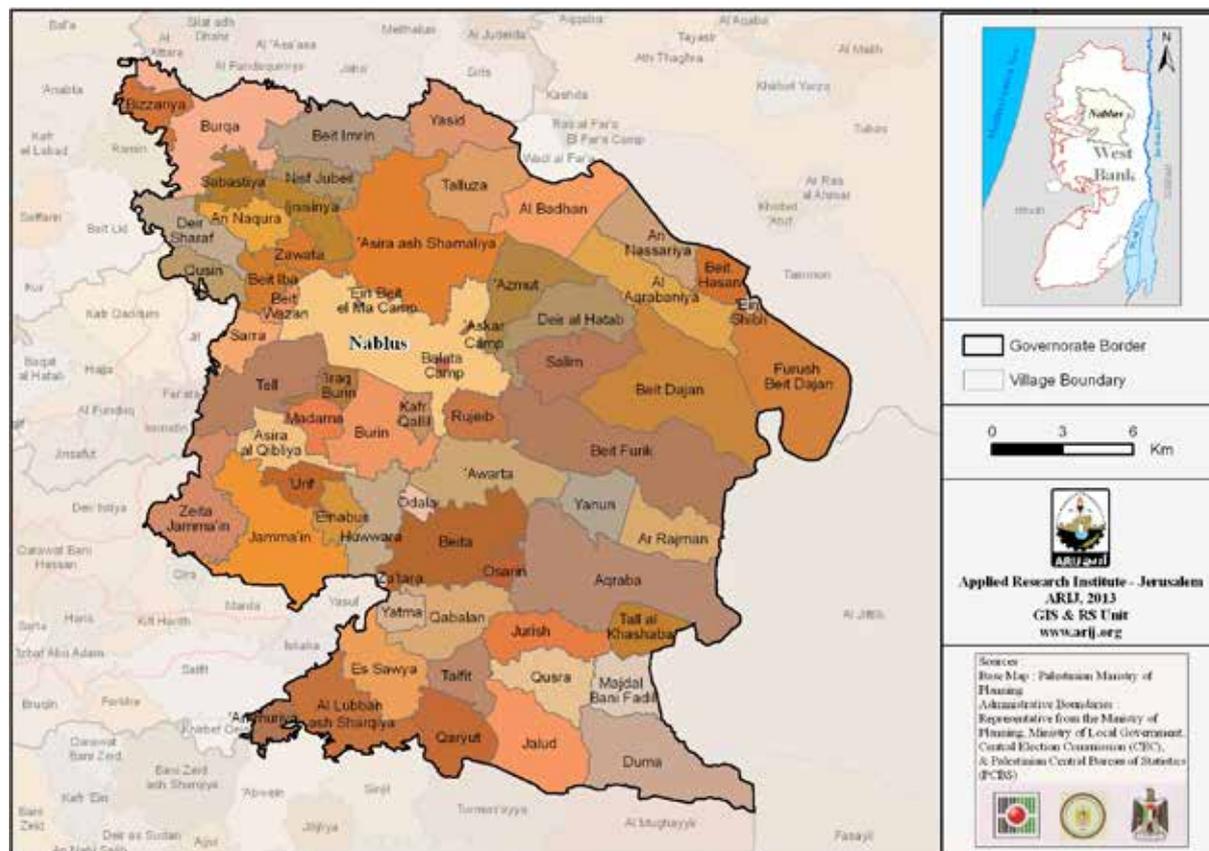
The methodological approach of the village profiling project very much centers upon community participation, with a focus on the inclusion of marginalized persons and groups in data analysis. Therefore, data collection involved a community questionnaire being developed by Village Profiling staff, which was subsequently completed by locality officials on behalf of numerous different groups (women, youth, agricultural workers, housekeepers etc) in the Governorate localities, under the supervision of the project specialists.

The data provided in the questionnaire dealt with profiling the needs of the different localities, by asking questions relating to economic, cultural, social and health issues. In addition to this, data from the Palestinian Central Bureau of Statistics (PCBS), the Ministry of Agriculture (MoA), the Ministry of Health (MoH) and the Ministry of Education and Higher Education (MEHE) and other related organizations has been analyzed and collated in one village profile, and includes data concerning demography, history, education, health, economy, natural resources, agriculture, geopolitical conditions, infrastructure, local institutions and services.

ARIJ's GIS (Geographic Information System) and Remote Sensing Unit developed explanatory maps for each locality in the Governorate. Each profile contains 3 maps; location, information, and a land use/land cover mapping.

52 locality profiles were developed; which include all localities in the Nablus Governorate. Further to this, there is a final project presentation to be produced, which will summarize and present the findings of all Village Profiling efforts in Nablus. In addition, each profile contains a list of each locality's developmental needs and priorities. This report contains integrated information about the Nablus Governorate, and needs for developmental project proposals (formulated as a response to the collected data) at a Governorate level. The completed profiles of all communities with their fact sheets and their needs for development matrices are available online at (<http://proxy.arij.org/vprofile/Nablus>).

Map 1: Localities' administrative boundaries



Source: ARIJ - GIS Unit, 2013

### 1.2.3. Participatory Rapid Appraisal (PRA) Workshops

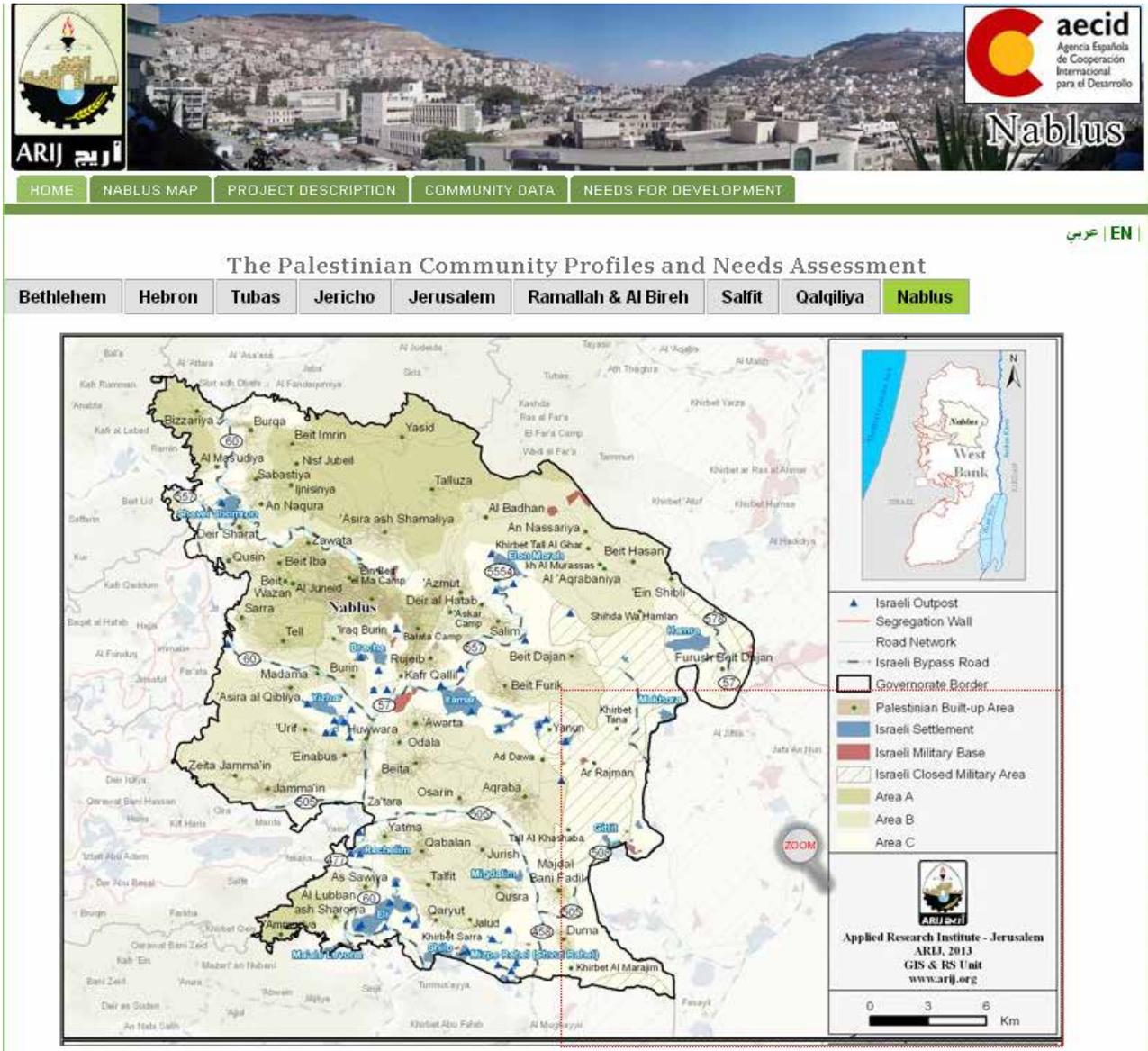
Many meetings, interviews and focus groups were conducted with farmers, local authorities and active institutions in the area in order to conduct a collective analysis, upon which all resultant development plans have been based.

The aim of the Participatory Rapid Appraisal (PRA) approach was to learn from the communities and the key persons/institutions working within them regarding their knowledge, attitudes and practices concerning agriculture and the management of available natural resources. This was done with the focus of enabling local people to assess these issues, and allow them to make their own plans to address them.

52 PRAs took place in the villages' councils and municipalities. The 52 PRAs were conducted (one for each administrative locality) along with a Governorate level meeting to gain feedback from an authority perspective, involving the preparation of a needs assessment and development planning proposal in response to information gathered from previous workshops and meetings. A final workshop was conducted at the end of the Nablus village profiling. The collected data was documented and analyzed, and several developmental plans and projects were formulated. As a result 52 village profiles were developed and subsequently translated into both Arabic and English.

## 1.2.4. Internet Database

ARIJ's Computer and Information Technology (IT) unit developed an online resource for the Nablus Governorate locality profiles in both Arabic and English. All data has been posted on the internet in an excellently organized and comprehensive database which is both easy to navigate and accessible to all. The profiles, maps, fact sheets, needs for development for every locality and integrated proposed project profiles for every locality can be found at the following website: (<http://proxy.arj.org/vprofile/Nablus>)



***PART TWO:***  
***Location, Physical Characteristics &  
Socio-Economic Conditions in the Nablus  
Governorate***

## 2.1. Location and Physical Characteristics

Nablus Governorate is located along the northern part of the West Bank. It is bordered by Jenin and Tubas Governorates to the north, Tubas and Jericho Governorates to the east, Salfit, Qalqiliya and Tulkarm to the west and Ramallah & Al Bireh Governorate to the south. As a region, Nablus covers a total land area of 605,012 dunums (605.01 km<sup>2</sup>); distinguished into eighteen major land use classes. These include Palestinian built up areas, Israeli settlements, closed military areas, military bases, open spaces, forests and construction sites (ARIJ – GIS Unit, 2013) (See map 2 and 3).

There are 52 localities in the Nablus Governorate, broken down into 64 geographical and 52 administrative areas. Some localities are run by village councils (43) and others by Municipalities (9). It is noted that Palestinian built-up areas constitute 4.7 % of the total area of the Governorate.

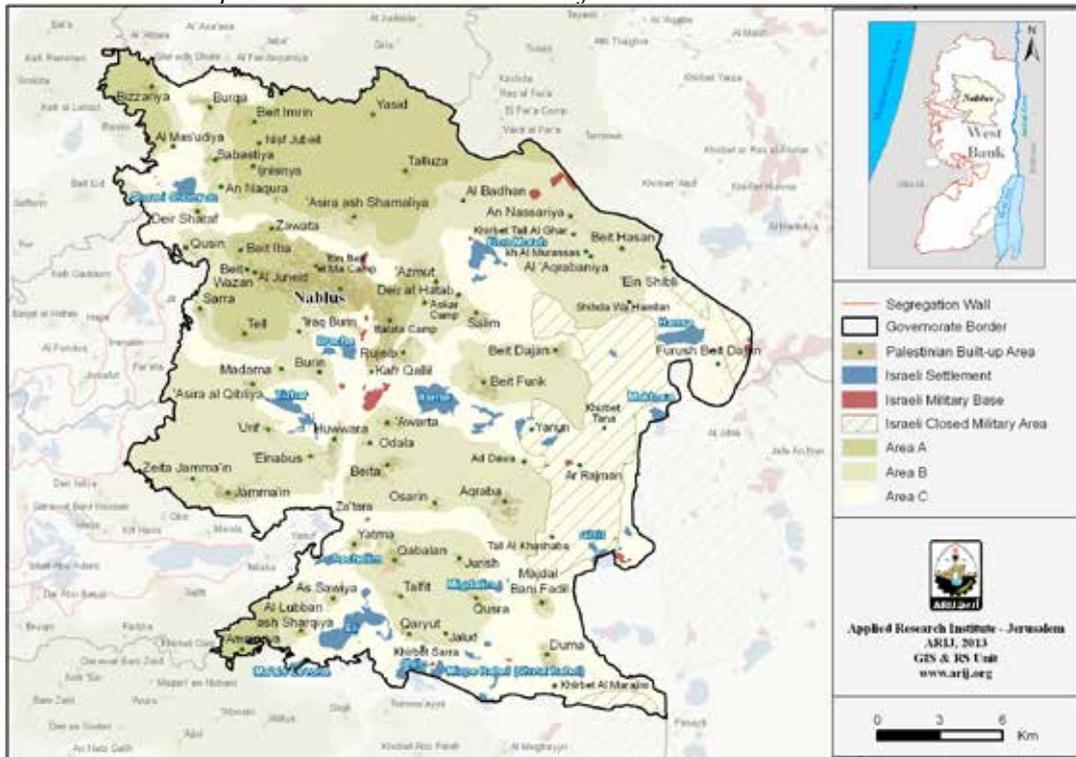
Table 2 provides the names of each locality, their status as ‘geographical’ or ‘administrative’ and those areas designated as refugee populations:

*Table 2: Nablus Governorate by geographical and administrative locality*

<b>Administrative Locality</b>	<b>Geographical Locality</b>	<b>Type of Administration</b>
Al 'Aqrabaniya		Village Council
Al Badhan		Village Council
Al Lubban ash Sharqiya	Al Lubban ash Sharqiya	Village Council
	'Ammuriya	
An Naqura		Village Council
An Nassariya		Village Council
Aqraba	Aqraba	Municipality
	Yanun	
As Sawiya		Village Council
'Asira al Qibliya		Village Council
'Asira ash Shamaliya		Municipality
'Awarta		Village Council
'Azmut		Village Council
Beit Dajan		Village Council
Beit Furik		Municipality
Beit Hasan		Village Council
Beit Iba		Village Council
Beit Imrin		Village Council
Beit Wazan		Village Council
Beita	Beita	Municipality
	Za'tara	
Bizzariya		Village Council
Burin		Village Council
Burqa		Village Council
Deir al Hatab		Village Council
Deir Sharaf		Village Council
Duma		Village Council

<b>Administrative Locality</b>	<b>Geographical Locality</b>	<b>Type of Administration</b>
'Ein Shibli		Village Council
'Einabus		Village Council
Furush Beit Dajan		Village Council
Huwwara		Municipality
Jamma'in		Municipality
Jurish		Village Council
Kafr Qalil		Village Council
Madama		Village Council
Majdal Bani Fadil		Village Council
Nablus City	Nablus City	Municipality
	Balata Camp	
	Askar Camp	
	'Ein Beit el Ma Camp	
Odala		Village Council
Osarin		Village Council
Qabalan		Municipality
Qaryut	Qaryut	Village Council
	Jalud	
Qusin		Village Council
Qusra		Village Council
Rujeib		Village Council
Sabastiya	Sabastiya	Municipality
	Ijnisinya	
	Nisf Jubeil	
Salim		Village Council
Sarra		Village Council
Talfit		Village Council
Talluza		Village Council
Tell	Tell	Village Council
	'Iraq Burin	
'Urif		Village Council
Yasid		Village Council
Yatma		Village Council
Zawata		Village Council
Zeita Jamma'in		Village Council

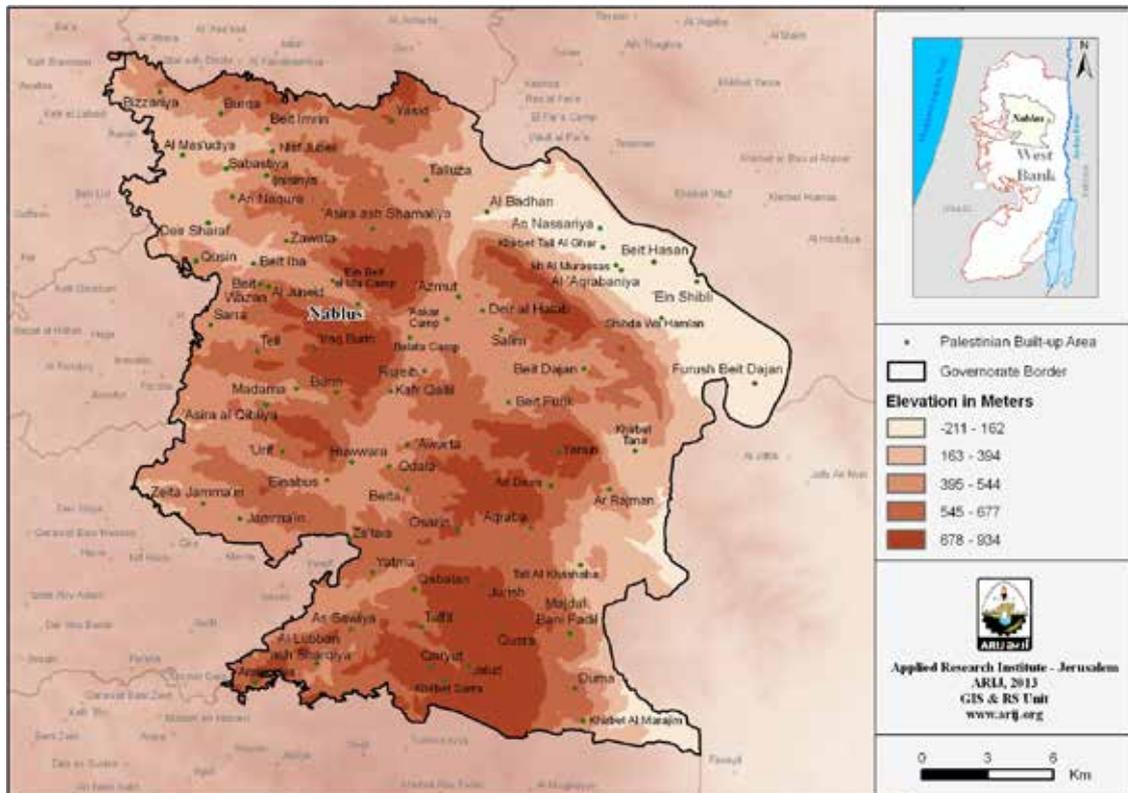
Map 2: Location and borders of the Nablus Governorate



Source: ARIJ – GIS Unit, 2013

Nablus Governorate is further characterized by variation in its topography and altitude. It has an elevation varying between 801m above sea level in the west, and -175m above sea level toward the west and northwest. (ARIJ – GIS Unit, 2011c) (See map 3).

Map 3: Topography of the Nablus Governorate

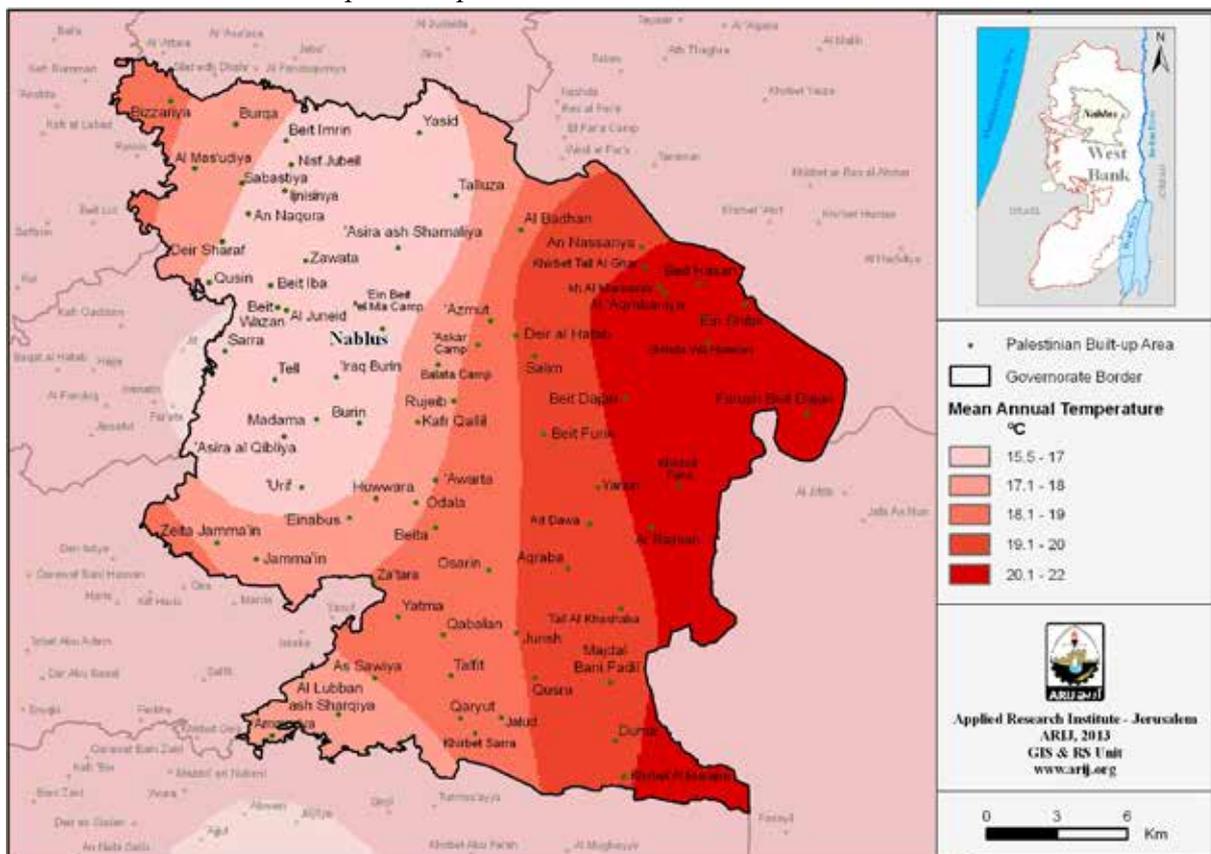


Source: ARIJ - GIS Unit, 2013

Nablus Governorate’s climate is determined as hot and dry in the summer, with the presence of mild winters. The mean average temperature across the region is 18 0C, with temperatures each annum ranging on average between 15 0C in January and 31 0C in August (ARIJ - GIS Unit, 2013) (See map 4).

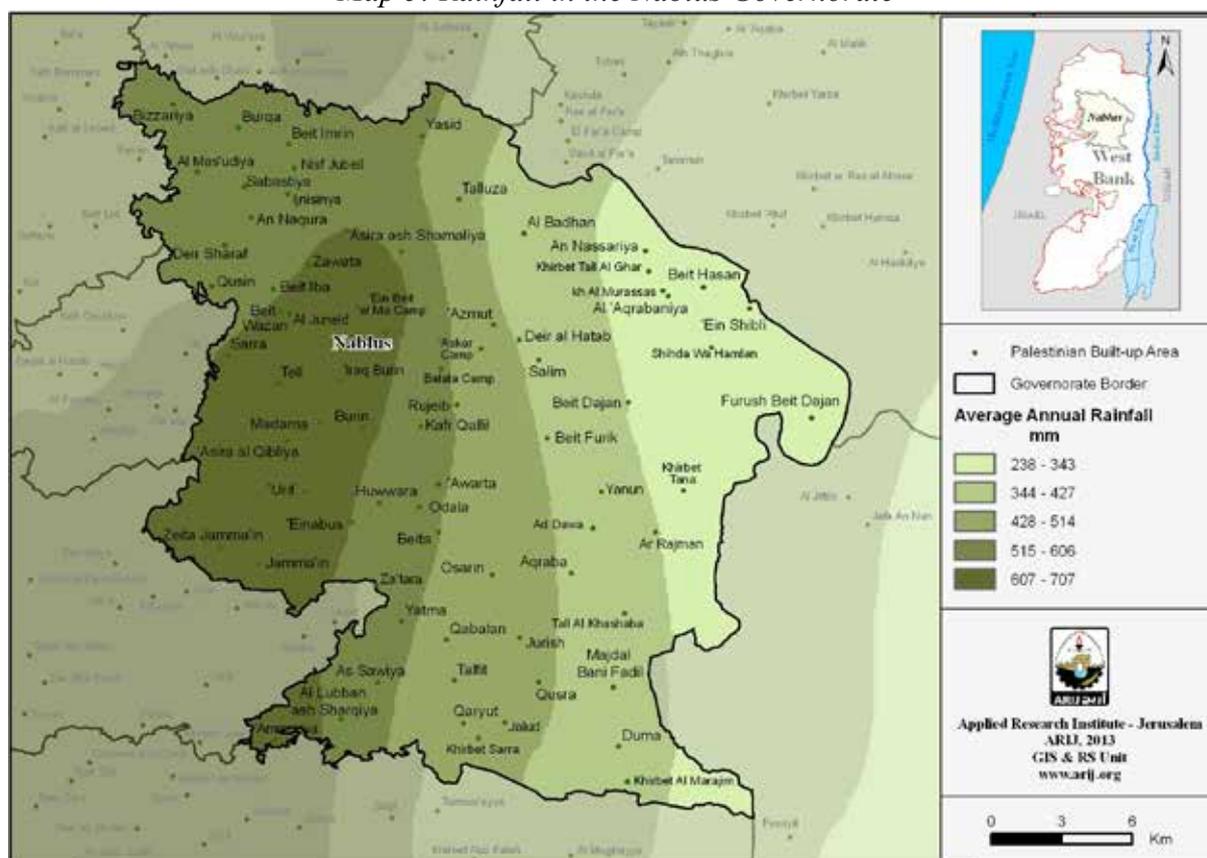
Summers in Nablus Governorate are hot and dry, while the mean quantity of rainfall varies from year to year. The mean annual rainfall is 586mm, with an average humidity of 59% (ARIJ - GIS Unit, 2013) (See map 5). In 2013, the yearly rainfall substantially differed across different localities in Nablus - there being the highest rainfall at 703mm in ‘Asira al Qibliya village, whilst the lowest was calculated at 278 mm in ‘Ein Shibli.

Map 4: Temperature in the Nablus Governorate



Source: ARIJ - GIS Unit, 2013

Map 5: Rainfall in the Nablus Governorate



Source: ARIJ - GIS Unit, 2013

## 2.2. Population

The total population of the Nablus Governorate in 2007 was 315,956 people; forming approximately 5.5% of the total population of the West Bank<sup>1</sup>.

Table 3 (below) shows the distribution of the population by sex and type of region (urban, rural and camp):

Table 3: Population in Nablus by type of area and gender disaggregation (2007)

Location	Male	Female	Total
Rural Area	56,467	54,730	111,197
Urban Area	88,221	86,182	174,403
Camp Area	15,088	15,268	30,356
<b>Total Area</b>	<b>159,776</b>	<b>156,180</b>	<b>315,956</b>

Source: PCBS, 2009a.

Investigating the population census for the years 1997 and 2007, it appears that 22.8% of the population has increased from the year 1997; noting that the total population in the year 1997 was 261,340 people (PCBS, 1997, PCBS, 2009a.).

According to the PCBS's classification<sup>2</sup> for the types of the Palestinian localities in their 2007

<sup>1</sup> Includes population counted during the period 1-16/12/2007 and uncounted population estimates according to a post enumeration survey.

<sup>2</sup> \*An urban area is any locality whose population amounts to 10,000 persons or more. This applies to the entire Governorates'

statistical census, 55.2% of the Nablus Governorate’s population live in urban areas, 35.2% in rural areas, whilst 9.6% inhabit refugee camps (See table 3). The 2007 PCBS Census further identified that 39.7% of the population in the Nablus Governorate were less than 15 years of age, with 56.1% in the age group 15-64, 3.8% were 65 years old and above and 0.4% were unaccounted for (PCBS, 2009f).

### 2.3. Labor Force

In terms of the economy, the Nablus Governorate registered an unemployment rate of 14.6% in 2013 compared with an average of 18.6 % for the West Bank; with the labor force forming approximately 50.9% of the population. The average daily wage in 2013 was up to 84.0 NIS (around \$24.5 at the time of publication). This however is lower than the average daily wage for the West Bank, which is calculated at 88.9 NIS (PCBS 2014a) (See table 4).

*Table 4: Labor Force Participation Rate, Unemployment Rate and Average Daily Wage in NIS for Wage Employees in the Nablus Governorate, 2013*

Governorate	Labor Force Participation Rate	Unemployment Rate	Average Daily Wage in NIS for Wage Employees
Nablus	50.9	14.6	84.0

\*The workers in Israel and Settlements are not included.

Source: PCBS, 2014a.

The PCBS’s annual report of their labor force survey conducted for the year 2013 showed that the ‘services and other branches’ sector ranked first in the number of working persons in Nablus (27.7%) followed by ‘mining, quarrying and manufacturing’ with 18.2%, then ‘construction’ with 18%, and ‘commerce, restaurants and hotels’ ranked fourth at 17.9%. The ‘agriculture, hunting and fishing’ sector ranked the fifth with 11.6%, and ‘transportation, storage and communication activities’ came sixth with 6.6% as listed in table 5 (PCBS, 2014a). (See figure 1).

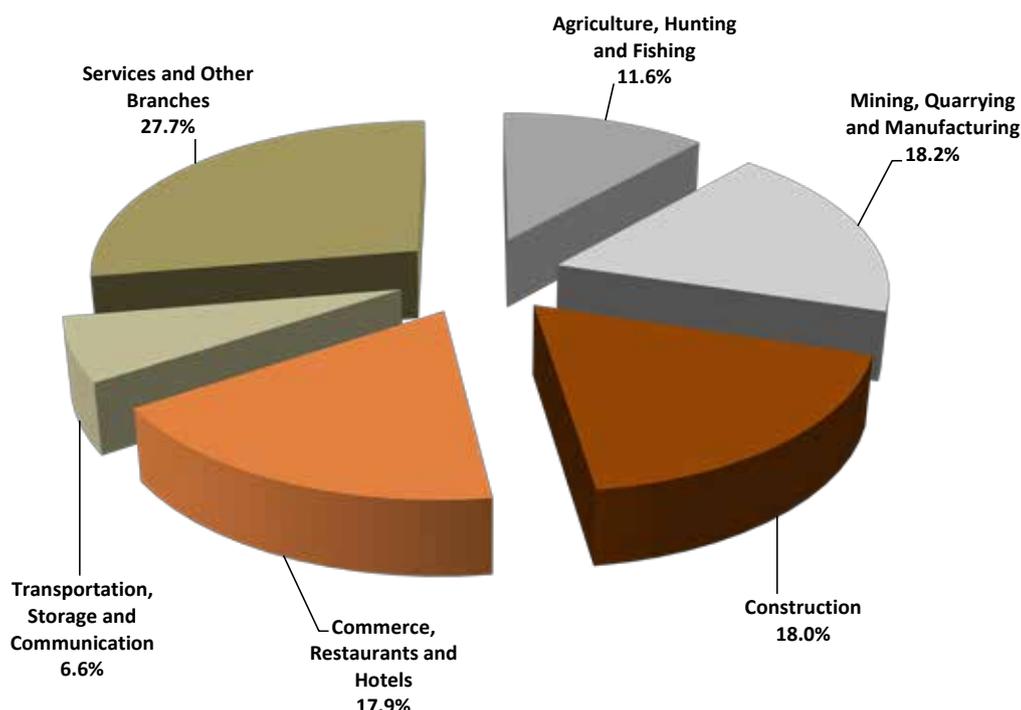
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center regardless of their size. Additionally, it refers to all localities whose population varies from 4,000 to 9,999 persons- provided they have at least four of the following elements: a public electricity network, a public water network, a post office, a health center with a full-time physician and a school offering a general secondary education certificate.

\*A rural area is any locality whose population is less than 4,000 persons or whose population varies from 4,000 to 9,999 persons lacks four of the aforementioned elements.

\*A refugee camp is any locality referred to as a refugee camp and administrated by the United Nations Relief and Work Agency for Palestinian Refugee in the Near East (UNRWA).

Figure 1: Labor force activity for Nablus Governorate (% amongst employed persons)



Source: PCBS, 2014a

Table 5: Percentage distribution of employed persons from the Nablus Governorate by economic activity, 2014

Economic Activity	Governorate (%)	
	Nablus	West Bank
Agriculture, Hunting and Fishing	11.6	11.5
Mining, Quarrying and Manufacturing	18.2	15.1
Construction	18	19.3
Commerce, Restaurants and Hotels	17.9	19.8
Transportation, Storage and Communication	6.6	5.6
Services and Other Branches	27.7	28.7
<b>Total</b>	<b>100</b>	<b>100</b>

Source: PCBS, 2014a

According to the distribution of employed persons by employment sector during the first quarter of 2014, the private sector has the biggest share of employed persons in the Nablus Governorate followed by the public sector, whilst 16.6% of the labor works in Israel and other Israeli settlements (See table 6).

Table 6: Percentage distribution of employed persons aged 15 years and above in the Nablus Governorate by sector (ILO Standards), January - March, 2014

Governorate	Sector (%)				Total
	Public Sector	Private Sector	Other Sectors	Israel and Settlements	
Nablus	15.1	73.8	2.1	9.0	100
West Bank	15.9	65.7	1.8	16.6	100

Source: PCBS, 2014b.

The 2007 PCBS census in the Nablus Governorate showed that 72.7% of the population were within the working age group (10 years and above<sup>3</sup>). Of the 229,771 people within the working age range (10 years and above), approximately 34.5% were economically active, 15% Female and 85% Male. Consequently, 65.3% were not economically active<sup>4</sup> (outside the labor force), 67.8% Female and 32.2% Male (PCBS, 2009a). The largest groups within the non-economically active population were students and housekeepers, constituting 51.5% and 36.7% of that population respectively. Table 7 shows the labor force statistics in the Governorate (as of 2007).

Table 7: Nablus population (10 years and above) by sex and employment status, 2007

SEX	Economically Active				Not Economically Active						Un-known	Total
	Emp-loyed	Currently Unemployed	Unemployed (Never worked)	Total	Stud-ents	House Keeping	Unable to work	Not working & Not looking for work	Other	Total		
M	59,333	4,521	3,555	67,409	37,996	117	6,369	1,320	2,487	48,289	239	115,937
F	9,675	657	1,635	11,967	39,234	54,970	6,142	528	845	101,719	148	113,834
T	69,008	5,178	5,190	79,376	77,230	55,087	12,511	1,848	3,332	150,008	387	229,771

Source: PCBS, 2009a.

## 2.4. Educational Status

According to the 2007 PCBS census, 5.0% of Nablus residents were illiterate with women comprising a greater percentage (77.8%) of the illiterate population than their male counterparts (22.2%). 13.2% could read and write with no formal education qualifications, 25% had completed elementary education, 28.3% preparatory education, 15.2% completed their secondary education whilst only 13.2% had achieved a higher education and 0.1% are unknown/not stated. Table (8) shows the education status in the Nablus Governorate by sex and educational attainment in 2007.

Table 8: Population (10 Years and above) in the Nablus Governorate by Sex and Educational Attainment, 2007

SEX	Illiterate	Can read & write	Elementary	Preparatory	Secondary	Associate Diploma	BSc.	Higher Diploma	MSc.	PhD	Unknown	Total
M	2,558	15,545	29,885	33,985	17,726	5,740	8,687	173	1,133	420	85	<b>115,937</b>
F	8,978	14,871	27,491	31,045	17,219	5,675	7,932	80	413	38	92	<b>113,834</b>
T	11,536	30,416	57,376	65,030	34,945	11,415	16,619	253	1,546	458	177	<b>229,771</b>

Source: PCBS. 2009a.

The Nablus Governorate has two educational directorates; with the governmental sector having the biggest share of schools there (forming approximately 83% of the total number of educational

<sup>3</sup> This includes students, not only labour force participants. Across the whole of the oPt, in 2010, just 4.8% of 10-17 year olds were registered as 'in the labour force' - making under-age workers a very small percentage of formal labour force activity in the country.

<sup>4</sup> Including students

institutes). There are 3 refugee camps in Nablus Governorate and 15 schools administered by UNRWA. 6 of these schools are for females and 7 are for males with the remaining 2 providing a co-educational environment. The private sector also controls 35 schools; 30 of which are co-educational, 4 of which are exclusively for males and one exclusively for females. (See table 9).

*Table 9: Distribution of schools in the Nablus Governorate by supervising authority and gender, 2013/2014*

Supervising authority in the Nablus Governorate	Male	Female	Co-education	Total
Government	90	96	58	<b>244</b>
UNRWA	7	6	2	<b>15</b>
Private	4	1	30	<b>35</b>
Grand Total	101	103	90	<b>294</b>

Source: MOEHE, 2014.

The Palestinian population is a youthful one (as of 2011 60.5% of the West Bank's population were classified as under 24 years of age, with this rising to 62.4% for the entire Palestinian territory)<sup>5</sup>, and this holds true for Nablus. Amongst the students in the Governorate, 81% attend governmental schools, whilst 10% attend private schools and 9% UNRWA run schools. There is no big difference between the participation of females and males in the educational system; Males constitute 49.6%, whilst females constitute 50.4% of students in the Nablus Governorate (MOHE, 2014) (See table 10).

*Table 10: Distribution of Students in the Nablus Governorate by supervising authority and gender, 2013\2014*

Supervising authority in the Nablus Governorate	Male	Female	Total
Government	37,982	40,627	<b>78,609</b>
UNRWA	4,252	4,378	<b>8,630</b>
Private	5,945	3,829	<b>9,774</b>
Grand Total	48,179	48,834	<b>97,013</b>

Source: MOEHE, 2013.

In terms of class size, in the governmental sector there are on average 28 students per class, whereas in UNRWA run schools there are 33.3 students per class, and in the private sector there are 25.6 (MOEHE, 2014) (See table 11).

*Table 11: Distribution of classes in the Nablus Governorate by supervising authority and gender, 2013/2014*

Supervising authority in the Nablus Governorate	Male	Female	Co-education	Total
Government	1,201	1,303	295	<b>2,799</b>
UNRWA	112	118	29	<b>259</b>
Private	72	52	258	<b>382</b>
Grand Total	1,385	1,473	582	<b>3,440</b>

Source: MOEHE, 2014.

## 2.5. Health Status

As of 2012 there were 68 health care centers in the Nablus Governorate; 64.7% of these being run by the governmental sector (See table 12).

<sup>5</sup> Source: Report by the Palestinian Central Bureau of Statistics; Palestinians at the end of 2011.

Table 12: Distribution of Public Health Care Centers in Nablus, 2012

Providers					Population per Centre
MoH	NGOs	UNRWA	PMMS	Total	
44	16	4	4	68	5,629

Source: MOH-PHIC, 2012.

There is also two governmentally run general hospital, which holds 270 patient beds (MOH-PHIC, 2012). However, most of these are located in Nablus city, and people from small and distant villages face great difficulties in reaching these health facilities.

There are 4 general hospitals providing a total of 379 beds (MOH-PHIC, 2013) (Table 13).

Table 13: Hospitals in Nablus Governorate by Location, Supervising Authority and Number of Beds, 2012

Hospital Name	Location	Supervising Authority	No of Beds
<b>GENERAL HOSPITALS</b>			
Rafidia	Nablus	MOH	215
Al Watani	Nablus	MOH	55
Al Itihad	Nablus	NGO	61
Ev. Mission (Al Injeli)	Nablus	NGO	48
<b>SPECIALISED HOSPITALS</b>			
Nablus Specialized Hospital	Nablus	Private	56
Specialized Arab Hospital	Nablus	Private	90

Source: MOH-PHIC, 2013

As for medical staff in the Governorate, data is only available for the governmental sector. Table 14 shows the numbers of health care staff (2012) in the one MoH (Ministry of Health) run hospital.

Table 14: Number of health care staff in the Nablus Governorate's Public Health Care Centers, 2012

Health care specialization	Number of health care staff
General physician	36
Specialist physician	5
Dentist	6
Pharmacist	11
Nurse	93
Midwife	17
Paramedic	52
Administration	54
<b>Total</b>	<b>274</b>

Source: MOH-PHIC, Annual Health Report, Palestine - 2012.

Statistics in 2012 showed that the Infant Mortality Rate (IMR) in the Nablus Governorate has declined to 1.47%. The average IMR in the West Bank reached 1.04% in 2012, making Nablus rate higher than this regional average (See table 15).

Table 15: Infant mortality rate in the Nablus Governorate (2012)

Live Births	Infant Deaths					Infant Mortality Rate %
	Male	%	Female	%	Total	
9,679	79	12.25	63	9.77	142	1.47

Source: MOH-PHIC, Annual Health Report, Palestine 2012.

The final results of the PCBS's Population, Housing and Establishment Census of 2007 showed that the number of persons in the Nablus Governorate who have at least one disability was 17,596. See table 16 for the number of people with special needs; disaggregated into type of difficulty.

Table 16: Number of people with special needs in the Nablus Governorate by type of difficulty, 2007

Sex	Type of Difficulty					Total with Disability	Not Stated
	Communication	Cognition	Moving	Hearing	Visual		
Male	1,190	1,173	3,487	2,282	4,805	9,083	679
Female	1,021	1,044	3,773	2,349	4,822	8,513	690
<b>Total</b>	<b>2,211</b>	<b>2,217</b>	<b>7,260</b>	<b>4,631</b>	<b>9,627</b>	<b>17,596</b>	<b>1,369</b>

Source: PCBS. 2009. 'Population, Housing and establishment, Census 2007, Final Results.'

## 2.6. Poverty and food insecurity

To understand the causes behind deteriorating livelihood conditions in Nablus, various economic, demographic, agricultural, nutritional, health, environmental and food security issues must be considered. The basic causes of food insecurity translate into underlying and immediate causes of poverty and food scarcity at the household level. These causes include limitations on food availability, negative effects on agricultural production and food trade/market supplies, insufficient economic access to food, and artificially high prices but few opportunities to secure employment.

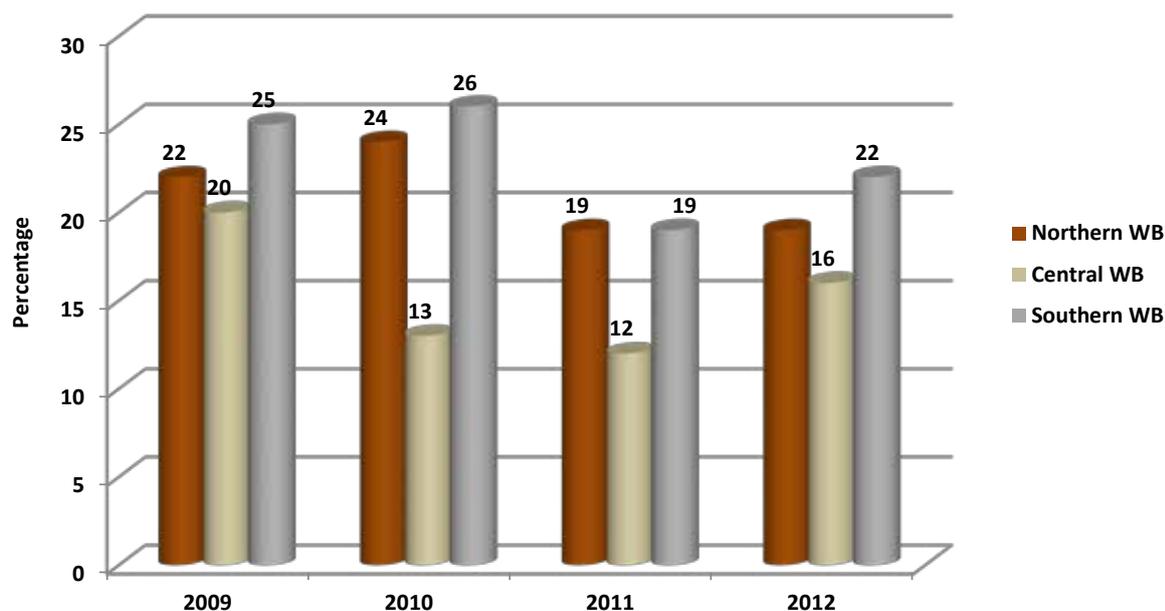
A number of quantitative studies have been carried out in Palestine in order to determine the levels of food insecurity, its effects and associated causes across the country. However, to date there is limited data on food insecurity, disaggregated at the locality level. FAO, WFP and PCBS conducts socio-economic and food security surveys (SEFSec), in order to gauge changes in the living conditions of Palestinian households by monitoring socio-economic and food security indicators. The survey collects data related to a number of food security indicators, including food acquisition, dietary diversity, household food insecurity Access Scale, income and consumption/expenditure patterns and coping mechanisms. This survey does not cover specific localities but it is disaggregated into regions (north, south, east and west of the West Bank).

The results of the 2012 SEFsec survey depict a harsh situation. Overall, 34% of Palestinian households' approximately 1.57 million individuals' were found to be food insecure in 2012. This level is 7% points higher than in the 2011 figures, this represents an almost complete reversal of the progressive improvements in food security reported since 2009. The surge in food insecurity mainly reflects the deterioration of socio-economic conditions in both the West Bank and Gaza Strip, resulting from the combination of sustained economic constraints and of the shock generated by the PA fiscal crisis in late 2012 (PCBS, FAO, UNRWA, WFP, 2012).

The North West Bank (including Qalqiliya, Nablus, Jenin, Tulkarm, Tubas and Salfit governorates) continues to show the level of food insecurity at 19%, compared to 16% across central regions of the West Bank. Food insecurity estimates did not fluctuate in the northern West Bank households relying more on agricultural and livestock production (46% of West Bank households own agricultural land and 47% of those owning livestock are located in the North), and have access to wider range of income sources (PCBS, FAO, UNRWA, WFP, 2012).

The SEFSec report 2012<sup>6</sup> further shows that the North West Bank had a decrease of 3 points in levels of food insecurity since 2009 (see Figure 2) (PCBS, FAO, UNRWA, WFP, 2012).

Figure 2: Food insecurity by geographical region in the West Bank, 2011

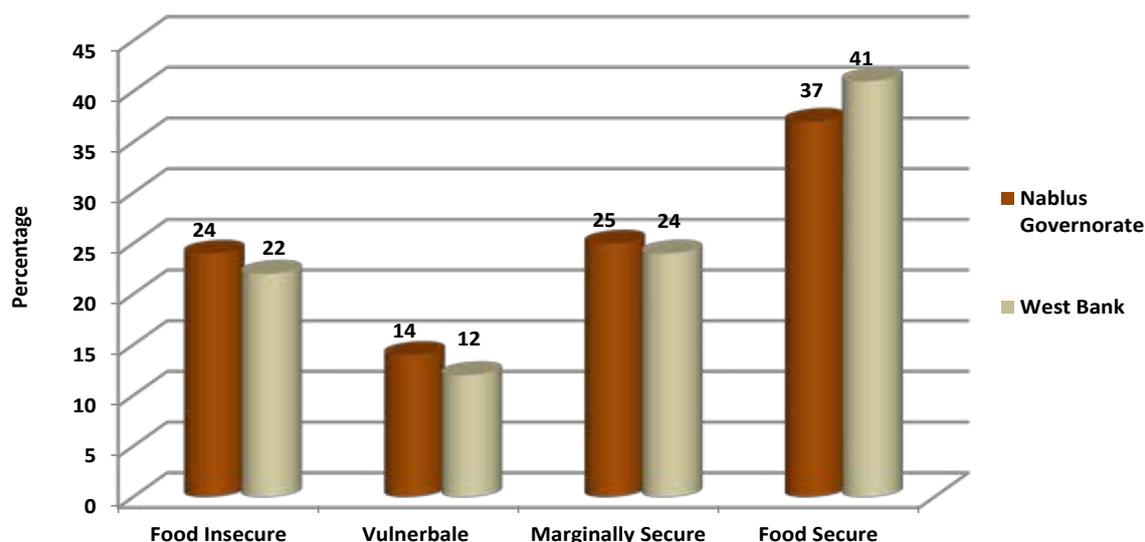


Source: FAO/UNRWA/WFP/PCBS, 2012

24% of Nablus Governorate’s households were found to be food insecure during 2010, in comparison to 22% of households across the West Bank (WFP/FAO/PCBS, 2011). This figure represents nearly 75,829 food insecure people, with a further 44,234 persons being classified as ‘vulnerable to food insecurity’ (14%). Additionally, 78,989 persons are ‘marginally secure’ (25%) with just 37% of the governorate being classified as ‘food secure’ (see figure 3). Food insecure households in Nablus Governorate are unable to secure sufficient income to meet their essential food and non-food requirements, mainly due to the lack of income-earning possibilities. This obliges families to decrease their intake of food items in terms of both quality and quantity.

<sup>6</sup> Food insecurity rates are “post-assistance” rates, i.e. after food assistance and relief transfers are taken into consideration. Households evaluated as food insecure are characterized by their low levels of income and/or consumption compared to the cost of a minimum food basket and other essential expenditures (housing, health, education, transportation).

Figure 3: Food Security Levels in Nablus Governorate, 2010



Source: WFP/FAO/PCBS, 2011

The current geo-political restrictions, significant increases in food prices, shrinking incomes and high unemployment rates have jeopardized household economies and led to heavy indebtedness and changes in eating habits. Previously self-reliant families are progressively falling into the poverty trap and are unable to escape their situation in the absence of job opportunities. Unemployment reached 14.6% in Nablus in the year 2013 (in comparison to 18.6% for the West Bank). The daily nominal wage is NIS 84 per day per capita, in comparison to the average of NIS 88.9 across the West Bank. These figures show that although unemployment is lower than the regional average, the daily wage is also significantly lower; thus more of the population are working but in lower paid positions (PCBS, 2014a).

Furthermore, the PCBS's 2007 statistical census showed that Nablus Governorate has a medium average family size (5.4 persons per household) in comparison to other West Bank Governorates; the average of the West Bank at the same time was 5.5 persons. These larger families increase food consumption and household expenses. According to the WFP (World Food Program) in 2009, the Nablus wealth index quintiles show that the poorest quintile comprised 20% of the total population of the governorate. This is in comparison to 19.5% across the West Bank; thus indicating the high level of poverty at governorate level (WFP/ARIJ, 2010). In addition, the percentage of households with a poor food consumption rate reached 4.6% in 2009, in comparison to 10.2% in the West Bank at the same time (WFP/ARIJ, 2010).

Palestinians are increasingly forced to rely on negative coping mechanisms in their fight against poverty and instability with the combination of decreased incomes and increased food prices forcing poorer households to change their food consumption patterns. Increasing food prices have significantly worsened the food-security situation of households in the Nablus Governorate, as a high percentage of household expenditure (48%) goes toward food (WFP/ARIJ, 2010). Up to 36.7% of Nablus Governorate residents reduced their food expenditures as a main coping strategy against food insecurity, forcing these families to buy fewer food items and to substitute normal foods with cheaper/less desirable items (PCBS/WFP/FAO, 2009). The strategy of food reduction, mainly regarding the quantity of meat purchased/consumed, was adopted by 43.6% of Nablus Governorate. Many households (32.2%) in Nablus chose to consume less food as a coping strategy against food shortages and rising food prices (WFP/ARIJ, 2010).

It is noted that even if such coping mechanisms are reversible (e.g.. switching to less preferred but cheaper food, decreasing the amount of food consumed, forgoing health or education expenditures, and purchasing food on credit), they can have a permanent cost on lives and livelihoods through poor health and nutritional problems. In addition, many Palestinians are also having to rely upon international or national assistance in terms of food security solutions, given that humanitarian assistance is a proven crucial complement to households own coping strategies. This intervention, however, does not always assist Palestinians in designing and implementing strategies to combat food insecurity in the long term. In Nablus, it was found that 41.6% of families received some form of livelihoods assistance in 2009, with 69.4% of this assistance in the form of food aid (WFP/ARIJ, 2010).

As a consequence of food security, children are most adversely affected by malnutrition. Poor environmental conditions may increase infections and contribute to deficiencies in micronutrients. Additional factors include unemployment, the poor economic situation and changes in household food consumption patterns, with reduced amounts of animal products, vegetables, and fruit. This contributes to a decrease in the quantity of minerals and vitamins ingested. Such micronutrient deficiencies can contribute to delayed growth, stunting and wasting in young children. Statistics show that iron deficiency anaemia<sup>7</sup> affected approximately 40.9% of children (under 3 years of age) and 25% % of pregnant women (tested in their first antenatal appointment) in Nablus Governorate in 2013, compared to 40.7 % and 27.2 %, respectively in the West Bank (MoH, 2013). The malnutrition statistics for the governorate are also of concern. In 2013, 1% of children were classified as ‘underweight’<sup>8</sup> , with 0.7% in the ‘wasting’<sup>9</sup> children category. In addition, 1.2% was classified as ‘stunted’<sup>10</sup> in growth (MoH, 2013).

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7 Anaemia is a condition in which haemoglobin is less than normal; the recommended dietary allowances of iron are 15mg a day for women and 10mg for men.

8 ‘Weight for Age’ of children under 5 years= > 2SD

9 ‘Weight for Height’ of children under 5 years= > 2SD

10 ‘Height for Age’ of children under 5 years= >2SD

***PART THREE:***  
***Agricultural & Environmental Status in***  
***Nablus Governorate***

### 3.1. Land Use/ Land Cover

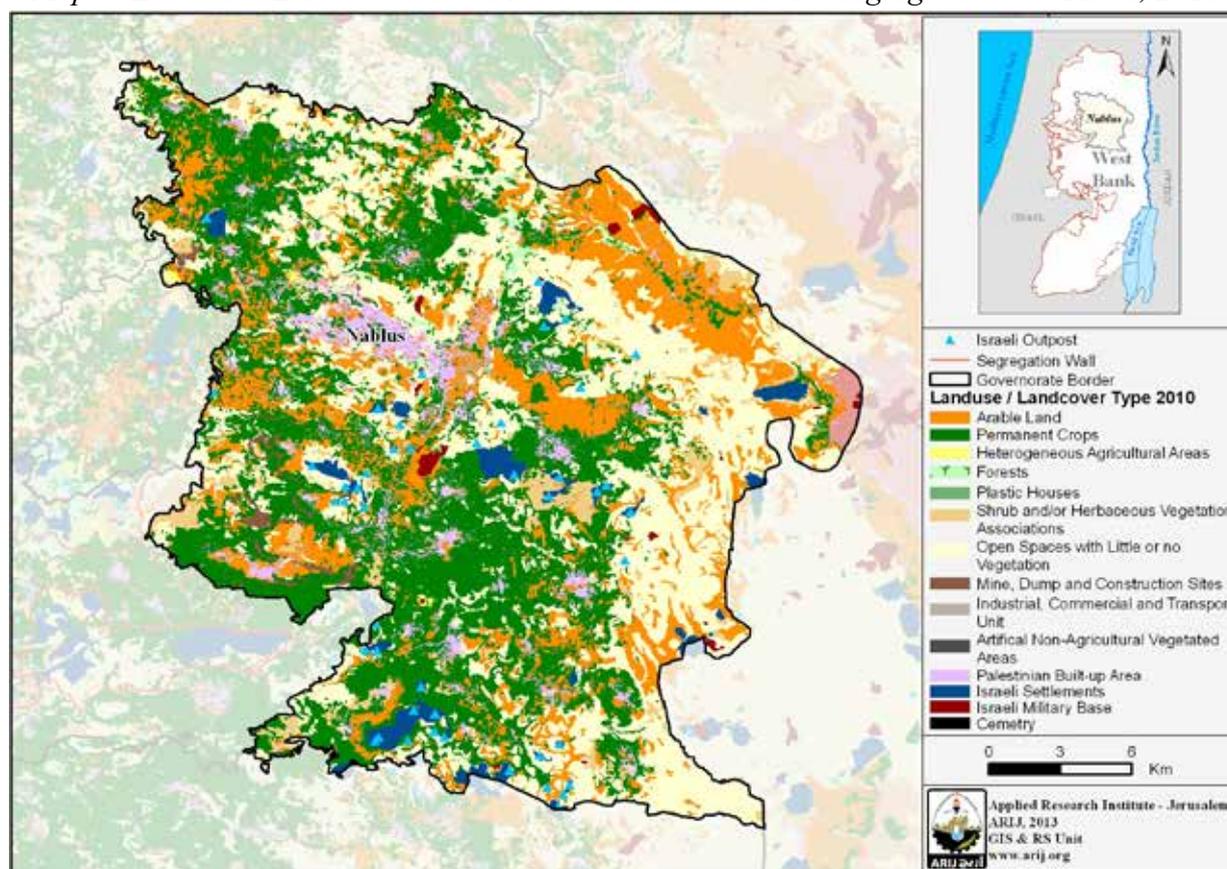
The Palestinian agricultural sector serves a population of approximately 3.8 million persons (PCBS, 2009a), acting both as an economic base and as the main source of food for many Palestinians. During the past eleven years, the agricultural sector in the occupied Palestinian territory has proven itself to be the most appropriate sector for dealing with emergencies erupting as a result of the extreme Israeli measures that were carried out against the Palestinian people during the Second Palestinian Intifada of 2000. Economic shocks from the Intifada, such as rising unemployment, restrictions in economic and labor markets and freedom of movement resulted in a widespread increase in both 'poverty' and 'deep poverty' levels in the region (Ajlumi, 2003). As a result, agricultural practices acted as a remedy to these problems, by aiding Palestinians to grow their own food and avoid falling into deeper poverty or suffering from food insecurity.

The PCBS and MoA conducted a recent (2011) survey, which resulted in calculating the total area of agricultural lands in the oPt as 1,207,061 dunums, of which 1,105,146 are found in the West Bank and 101,915 in the Gaza Strip. The type of survey undertaken was mainly based on a certain definition for the size of agricultural holdings, pertaining also only to physical agricultural areas and not seasonal ones<sup>11</sup>. Compared to the year 2008 when the total agricultural area for the oPt was registered at 1.854 million dunums, this research shows there to have been a decrease of 646,939 dunums of agricultural lands. Compared to this however, ARIJ's, 'GIS Unit, 2011' analysis for agricultural areas in the year 2010, showed that the West Bank's total agricultural area was 2,150,800 dunums (ARIJ, 2011a). This difference is due to the fact that PCBS and MoA surveyed the 'actual' agricultural lands (as according to the aforementioned methodological classification), whilst dismissing fragmented small size agricultural lands dominant in urban areas and in certain spaces where springs are located. ARIJ's surveying discovered a high percentage of small and fragmented ownership (family cultivations) across the oPt. This means an additional 1,045,654 dunums of small land ownerships could be added to the PCBS and MoA's official 2010 agriculture survey.

In Nablus Governorate, as of 2013, 11.6% of the total labor force (male and female) work in agriculture, in comparison to the average across the West Bank at 11.5% (PCBS, 2014a). Agriculture is therefore clearly an important industry in Nablus, given its dominance of the local labor force and role in providing food solutions for many needy families and communities there. The total area of the Nablus Governorate is estimated to be 605,012 dunums, with nearly 326,563 dunums of agricultural land; of which 203,489 dunums are permanent crops, 120,979 are seasonal crops, 1682 are heterogeneous cultivations and 413 are classified as 'protected agriculture' (ARIJ- GIS Unit, 2008) (See table 17 and map 6). The Palestinian National Authority (PNA) and key international players recognize the importance the agricultural sector plays in supporting both the Palestinian economy and individual livelihoods, and as such have recently formulated a National Development Plan for the years 2011-2013. This has the stated vision of, "Establishing the State and Building our Future", where the agricultural sector has been defined as the 'agriculture and rural development sector', with allocated budgets (of total development expenditures) for the years 2011, 2012 and 2013 of US \$34.2, \$60.7, and \$83.0 million, respectively.

<sup>11</sup> The survey only registered land <half a dunum as agricultural holding for 'irrigated lands' and those with an area equal to one dunum <are considered to be a 'rain-fed' holding).

Map 6: Land use / Land cover in the Nablus Governorate and Segregation Wall Route, 2010



Source: ARIJ - GIS Unit, 2013

Table 17: Land Use/ Land Cover in the Nablus Governorate, 2010

Type of land use/land coverage	Area (Dunums)*
Agricultural and	326,563
Artificial non-agricultural vegetated areas	76
Forests	3,296
Pastures	2,842
Industrial, commercial and transport unit	2,218
Inland water	30
Mine, dump and construction sites	6,215
Open spaces with little or no vegetation	193,004
Shrub and/or herbaceous vegetation associations	24,063
Cemetery	89
Israeli Military Base	2,707
Israeli Outpost	95
Israeli Settlements	15,382
Palestinian Built-up Area	28,432
<b>Total</b>	<b>605,012</b>

\*Dunum = 1,000 m<sup>2</sup> = 0.1 Hectare

Source: ARIJ – GIS Unit, 2012a

It is worth mentioning that the allocated budgets by government and/ or donors for agricultural development are very limited and do not respond to the real needs of this vital sector. For example,

of the total expenditures in all sectors, donors have spent less than 1% in support of agriculture in Palestine. Even through the ‘Consolidated Appeal Process (CAP)’, the agricultural sector didn’t manage to receive than 22% of the sector appealed budget for the year 2010. However, statistics have demonstrated that the agricultural sector in Jericho is of high importance, in terms of economic performance, providing sustainable food solutions and for continuing the farming culture of many local communities. There is a need for Jericho Governorate, as one of the largest agricultural producers in the Palestinian territory to be supported by both the PNA and relevant international groups in terms of sustaining the currently effective areas of the agricultural sector, whilst simultaneously developing weaker components. This will have a positive impact on the economy of the Nablus, the livelihoods of many individuals and families, poverty and food security levels in the region.

In terms of adequate irrigation supply for crop production and other agricultural activities, Nablus suffers severe problems in the availability of needed irrigation methods and technologies. Of all the West Bank and Gaza Governorates, the Nablus Governorate has the fewest effective working irrigation methods. Table 18 below details the number of plant and mixed holdings in the Governorate by main source of irrigation.

*Table 18: Number of plant and mixed holdings in the Nablus Governorate by main source of irrigation, 2010*

<b>Main Source of Irrigation</b>	<b>Number of plant and mixed holdings</b>
Rain fed	10,995
Artesian wells	101
Streams and valleys	5
Dug well	2
Tanks, ponds and collective well	36
Springs	150
Public network	75
Tanks	22
Other sources	2
Not stated	72
More than 1 source of irrigation	683
<b>Total</b>	<b>12,143</b>

*Source: PCBS, 2011b.*

The size of agricultural holdings in the Nablus governorate also provides an interesting perspective on the state of the agricultural sector and its relationship with food security in the region. Data provided by the PCBS shows that the majority of agricultural holdings in the Nablus are small in size so as to indicate a household or small community cooperative level of production (See table 19). This shows that many individuals and families in the Nablus rely on their food consumption to come from self or local community level agricultural production.

Table 19: Area of Agricultural Holdings in the Nablus Governorate, 2010.

Area Group of Holding (in Dunums)	Units of Agricultural Holdings
Up to 2.99	5,072
3 – 5.99	2,806
6 – 9.99	1,804
10 – 19.99	1,920
20 – 29.99	727
30 – 39.99	331
40 – 49.99	214
50 – 59.99	158
60 – 69.99	89
70 – 79.99	55
80 +	274
<b>Total</b>	<b>13,450</b>
<b>Average of holding size</b>	<b>11.90</b>

Source: PCBS, 2011b.

### 3.2. Agricultural Activities

Agriculture is one of the most important economic pillars in Palestine, as well as being considered an integral part of its history, culture and identity. Agriculture has become a symbol for the Palestinian people to protect their lands from confiscation, and it is the sector that hosts the refugee laborers from other sector during political conflicts and economic crisis. The Nablus Governorate constitutes 7.6% of the value of agricultural production across the Palestinian territory (PCBS, 2009g).

In addition, the type of agriculture practiced in the Nablus Governorate varies according to region, but in general, it can be divided into two groups, plant (both rain fed and irrigated), and livestock production.

#### 3.2.1. Plant Production

The total cultivated area in Palestine is usually categorized into ‘Fruit Trees’, ‘Vegetables’, and ‘Field Crops and Forages’. As of 2010, nearly 90.5% of the entire area of plant production was determined as ‘rain-fed’.

According to the PCBS, the total area of plant production in the Nablus Governorate in the agricultural year 2007/2008 reached 246,087 dunums with total plant production of 65,063 tons; generating a total value of US \$55,190 thousand. Compared to the year 1997/1998, we notice a decrease of approximately 13.5% of the total planted area, a 7.35% increase in total production, and a 13.5% decrease in the total production value (PCBS, 2009d).

As previously mentioned, agriculture in the Nablus Governorate is mainly dependent on irrigated methods, which requires good water availability, water systems and competent water management plans; all of which are vulnerable to the joint Israeli/Palestinian control of water supplies (summarized as; Israeli control over quantity and Palestinian responsibility for management/distribution), and funding to maintain adequate water supply networks. Currently, irrigated agriculture covers approximately 12% of cultivated lands in the oPt and uses about two thirds of Palestinian water resources whilst contributing a gross output of around \$500 million annually. To sustain this viable

sector, coping plans and strategies should be developed to mitigate the impact of both negative Israeli and Palestinian water authority policy (encourage good governance in both parties involved in water management) and developing funding plans for better water systems, in terms of effective supply and distribution.

## Fruit Trees Production

During the 2007/2008 season, the total cultivated area of fruit trees in the Nablus Governorate reached 201,757 dunums, of which 0.13% was un-bearing. 9.6% of the areas cultivated with fruit trees in the Nablus Governorate were irrigated. The total value of agricultural production for the year 2008 in Nablus was US\$35,543,000; making up 13.5% of the total revenue produced from agricultural production during the same year. The value added<sup>12</sup> of agriculture production in Nablus stood at US\$66,628,000 for the years 2007/8, which equates to 7.6% of the Palestinian territory total value added cost during the agricultural year 2007/2008, which amounted to US\$876.2 million (PCBS, 2009g).

The total production of fruit trees reached 32,772 tons with a total value of US \$35,543, 000. Olive production constituted most of the total fruit production, making up to 91.5 % of the total area of fruit trees area in the Nablus Governorate, followed by Almond (Hard) at 2.61%. Compared to the year 1997/1998, one notices a 4.2% decrease in the total area of land being used for the cultivation of fruit trees<sup>13</sup>. In addition, the total amount of fruit being produced from cultivations in Nablus has also noticeably declined from the year 1997/8; by 4178 tones. Furthermore, there has been a resultant rise in the value of fruit tree production in Nablus; from an annual total of US \$ 54,267,000 in 1997/8 to US \$66,628,000 by 08/09; representing an increasing of 22.8% (PCBS, 2009g)

As shown in table 20, olive and almond (Hard) trees are the most highly cultivated fruit trees in the Nablus Governorate.

Table 20: Area, yield and production of fruit trees in the Nablus Governorate by crop and type, 2007/2008

Crop	Bearing				Unbearing		Total Area	Production
	Rainfed		Irrigated		Rainfed Area	Irrigated Area		
	Area	Yield	Area	Yield				
Olive	181,752	120	288	400	1,835	28	183,903	21,925
Almond(Hard)	5,083	100	-	-	183	-	5,266	508
Fig	3,544	600	-	-	274	-	3,818	2,126
Plum	1,438	400	-	-	123	-	1,561	575
Grape	1,009	569	100	2,000	167	53	1,329	774
Almond(Soft)	942	100	-	-	324	-	1,266	94
Navel Orange	-	-	966	2,500	-	32	998	2,415
Lemon	-	-	635	3,000	-	74	709	1,905
Apricot	394	200	-	-	67	-	461	79
Clement	-	-	428	2,000	-	8	436	856
Aloe	400	400	-	-	25	-	425	160

<sup>12</sup> For the preparation of this report, value-added is calculated on the basis of agricultural year, which extends from 01/10/2007 until 30/09/2008 (PCBS,2009f)

<sup>13</sup> This area was included in the land use land cover but under different classification as graded in the land use land cover table (20).

Apple	304	60	-	-	107	-	411	18
Shamoty Orange	-	-	324	1,500	-	11	335	486
Pomegranate	150	500	-	-	50	-	200	75
Mandarin	-	-	152	2,000	-	1	153	304
Peach	63	250	-	-	57	-	120	16
Valencia Orange	-	-	78	2,000	-	-	78	156
Poppy	-	-	61	2,000	-	5	66	122
Cherry	32	300	-	-	29	0	61	10
Guava	-	-	25	1,000	-	25	50	25
Francaawy Orange	-	-	42	2,000	-	-	42	84
Date	-	-	18	1,000	-	18	36	18
Bomaly	-	-	19	2,000	-	-	19	38
Others	-	-	-	-	12	-	12	-
Balady Orange	-	-	1	1,500	-	-	1	2
Grapefruit	-	-	1	1,000	-	-	1	1
<b>Total</b>	<b>195,111</b>		<b>3,138</b>		<b>3,253</b>	<b>255</b>	<b>201,757</b>	<b>32,772</b>

Area: Dunum, Yield: Kg/Dunum, Production: metric tons

Source: PCBS, 2009g.

## Vegetable Production

Results from the agricultural year 2007/2008 indicated that approximately 5,911 dunums of cultivated land were used for vegetable production in Nablus; comprising 3.17% of the total area of cultivated lands for vegetable production in the Palestinian territory. In addition, regionally, vegetable production is by far the second agricultural market in Nablus, as it makes up just over 28% of all cultivated agricultural produce in the Governorate (PCBS, 2009g). Of the cultivated areas used for vegetable production, 95% occurred on irrigated lands, with 5% rain-fed agricultural lands, nor greenhouses. The total production of vegetables, for the year 2007/8 reached 18,325 tons with a total value of US\$12,403.

Compared to the year 1997/1998, one can see a decrease of 34% in the total area planted with vegetables, 172% increase in the total area of greenhouses, a 47 % increase in total production, and (approximately) a 134.2% increase in the total production value.

In terms of type of production, cucumber, tomatoes, and squash are the main crops of vegetables produced, comprising 75.7% of the total vegetable areas in the Nablus Governorate. Table 21 shows the vegetable production in the Nablus Governorate.

Table 21: Area, yield and production of vegetables in the Nablus Governorate by crop and type, 2007/2008

Crop	Production	Total Area	Surface tunnel		French tunnel		Plastic houses		Irrigated		Rainfed	
			Yield	Area	Yield	Area	Yield	Area	Yield	Area	Yield	Area
Cucumber	9,088	3,257	2,375	1,735	-	-	6,872	117	2,963	1,405	-	-
Squash	1,928	535	4,000	220	-	-	-	-	3,500	293	1,000	22
Eggplant	1,369	343	4,000	55	-	-	-	-	4,000	287	600	1
Tomato	2,864	320	4,000	20	-	-	18,000	115	4,000	177	700	8
Onion(Green)	294	173	-	-	-	-	-	-	1,700	173	-	-
Broad Bean(Green)	194	173	-	-	-	-	-	-	1,500	79	800	94
Okra	105	124	-	-	-	-	-	-	1,000	31	800	93
Jew's Mallow	431	123	-	-	-	-	-	-	3,500	123	-	-
Spinach	238	119	-	-	-	-	-	-	2,000	119	-	-
Cauliflower	361	103	-	-	-	-	-	-	3,500	103	-	-
Kidney Bean(Green)	109	93	1,000	25	1,500	3	1,700	20	1,000	45	-	-
Hot Pepper	189	91	-	-	-	-	3,000	7	2,000	84	-	-
Muskmelon	360	90	-	-	-	-	-	-	4,000	90	-	-
Maize	228	76	-	-	-	-	-	-	3,000	76	-	-
Paprika	91	46	1,500	10	-	-	2,500	8	2,000	28	-	-
Warak Lesan	46	46	-	-	-	-	-	-	1,000	46	-	-
Snake Cucumber	45	45	-	-	-	-	-	-	-	-	1,000	45
White Cabbage	133	38	-	-	-	-	-	-	3,500	38	-	-
Lettuce	81	27	-	-	-	-	-	-	3,000	27	-	-
Parsley	35	23	-	-	-	-	-	-	1,500	23	-	-
Peas	13	18	-	-	-	-	-	-	-	-	700	18
Red Cabbage	48	16	-	-	-	-	-	-	3,000	16	-	-
Pumpkin	41	10	-	-	-	-	-	-	2,000	7	9,000	3
Chick Peas(Green)	10	10	-	-	-	-	-	-	-	-	1,000	10
Radish	18	9	-	-	-	-	-	-	2,000	9	-	-
Turnip	6	3	-	-	-	-	-	-	2,000	3	-	-
<b>Total</b>	<b>18,325</b>	<b>5,911</b>		<b>2,065</b>		<b>3</b>		<b>267</b>		<b>3,282</b>		<b>294</b>

Area: Dunum, Yield: Kg/Dunum, Production: metric tons

Source: PCBS, 2009g.

## Field Crops and Forages Production

In the 2007/2008 agro-production season, the majority of land 93.6% utilized for field crop/forages production used rain-fed technology. Such practices are possible because there is adequate annual rainfall to make such cultivation methods viable and the necessary rain fed agricultural technologies is in place to support such production. The total estimated area of land used for field crop/forage production was 38,419 dunums, with production quantity reaching 13,966 tons (the lowest amount of all Palestinian governorates across the West Bank and Gaza), with a total value of US \$7,214,000. This production value forms approximately 12.4% of total field crop production across the West Bank and 7.5% of total Palestinian production for the same agricultural year (2007/8).

Compared to the year 1997/1998, there was a decrease of approximately 41% in the total area planted with field crops and forages; however, we notice an increase of approximately 24.8% in the total production, accompanied by a 70.8% increase in the total production value.

Potato production made up 51.5% of the total field crops and forages area of Nablus, with Sern being classified as the second largest produced crop, at 14.7% (See table 22).

*Table 22: Area, yield and production of field crops and forages in the Nablus Governorate by crop and type, 2007/2008*

Crop	Rainfed		Irrigated		Total Area	Production
	Area	Yield	Area	Yield		
Wheat	24,330	60	-	-	24,330	1,460
Sern	4,101	500	-	-	4,101	2,051
Vetch	2,109	50	-	-	2,109	105
Potato	-	-	1,800	4,000	1,800	7,200
Barley	1,601	50	-	-	1,601	80
Broad Bean	917	70	-	-	917	64
Clover	915	500	-	-	915	458
Dry Onion	297	900	350	4,000	647	1,667
Lentil	590	30	-	-	590	18
Chick Peas	434	30	-	-	434	13
Onion Tuber	-	-	320	2,500	320	800
Broom Corn	279	120	-	-	279	33
Safflower	227	7	-	-	227	2
Sesame	117	10	-	-	117	1
Dry Garlic	20	700	-	-	20	14
Fenugreek	12	15	-	-	12	0
<b>Total</b>	<b>35,949</b>		<b>2,470</b>		<b>38,419</b>	<b>13,966</b>

*Area: Dunum, Yield: Kg/Dunum, Production: metric tons*

*Source: PCBS. 2009g.*

### 3.2.2. Livestock Production

The total production of livestock in the Nablus Governorate during the agricultural year 2007/2008 reached 7,167 tons of meat (red and white), 21,235 tons of milk, 12 million eggs and 19 tons of honey (PCBS, 2009f).

The value of livestock production in the Nablus Governorate during the agricultural year 2007/2008 registered approximately US \$48,330 thousand, having increased by 86.9% compared to the year 1997/1998 (PCBS, 1998). The contributions of different sectors from the total livestock production value of the Nablus Governorate were as follows: 57.81% meat 38.0% dairy, 2.19% eggs, 0.52% honey and 1.46% in the 'other livestock' category. It is noted that there is no fish production in Nablus.

Compared to the year 1997/1998, there was an increase of approximately 113.5% on the total production value of meat (red), an increase of 80.8% on the total production value of milk, and a decrease of 6.7 % on the total egg production value. Additionally, there was an increase in the honey production value by 80.5% (PCBS, 1998).

## Cattle Production

The total number of cattle in the Nablus Governorate during the agricultural year 2007/2008 was 3,729 heads, with a total value of production (meat & milk) of approximately US \$13,638,000 (PCBS, 2009g). Compared to 1997/1998, there has been a 16.3% reduction in the total number of cattle farmed in Nablus. In terms of cattle value, however, there has been a 52.5% increase in the value of cattle since 1997/8 (PCBS, 1998; PCBS, 2009g). Cattle production, when compared to other agricultural activities however a large industry in Nablus, as it constitutes 53.1% of livestock production across the Governorate and 15% of the total cattle production in Palestine.

Table 23 compares the total number and type of cattle farmed in the Nablus Governorate and the whole Palestinian Territory.

Table 23: Number of cattle by strain, sex and age in the Nablus Governorate compared to the total in the Palestinian territory, 2007/2008

Type of cattle farmed in Nablus Governorate		Region	
		Nablus	Palestinian territory
Local cattle	Cows	520	2,910
	Bull Claves	100	918
	Heifer Claves	80	638
	Bulls	30	185
	Total Local Cattle	730	4,651
Friesian cattle	Cows	2454	16,504
	Bull Claves	399	7,141
	Heifer Claves	108	4,310
	Bulls	38	380
	Total Friesian Cattle	2,999	28,335
<b>Total no. of cattle</b>		<b>3,729</b>	<b>32,986</b>

Source: PCBS, 2009g.

## Sheep and Goat Production

During the agricultural year 2007/2008 the total number of sheep and goats in the Nablus Governorate reached 71,401 and 22,709 heads, respectively. The total value of the production of sheep and goats combined (meat and milk) reached approximately US \$23,311, 000 in 2008 (PCBS, 2009g).

Compared to 1997/1998, the number of sheep and goats in the Nablus governorate increased by 44.3%, in addition the value of meat has increased by 123% and milk has decreased by 7.8% (PCBS, 1998).

See table 24 for types and numbers of goats and sheep in the Nablus Governorate and in the Palestinian territory.

*Table 24: Number of sheep and goats in the Nablus Governorate compared to total heads across the Palestinian territory, 2007/2008*

Governorate	Goats			Sheep		
	Local	Other	Total	Local	Other	Total
Nablus	19,595	3,114	<b>22,709</b>	46,581	24,820	<b>71,401</b>
Palestinian territory	274,888	47,194	<b>322,082</b>	453,554	235,345	<b>688,899</b>

Source: PCBS. 2009f.

It is worth noting that goats' number decreased by 25.3% and sheep increased 8.4% in the year 2010 respectively, since the year 2007/08. The total number of sheep reached up 77,396 heads and the goats to 16,970 heads in the year 2010 (PCBS, 2011d).

### **Poultry Production**

The total number of poultry in the Nablus Governorate during the agricultural year 2007/2008 was 2,334 birds (comprising of Layers 48 and 2,286 broilers); constituting just 7.7% of the total poultry production in the Palestinian territory. The total value of poultry production (meat & eggs) stood at approximately US\$10,424,000 (PCBS, 2009g).

Compared to the agricultural year 1997/98, the number of laying poultry has dramatically decreased by 17.2%, but with broiler bird production increased by 38.5% (PCBS, 1998; PCBS, 2011d). In addition, there was an increase of approximately 78.5% on the total production value of poultry; both layers and broilers.

Table 25 compares the total number of layer and broiler birds in the Nablus Governorate and the Palestinian territory for the agricultural year 2007/2008.

*Table 25: Number of broilers and layers in the Nablus Governorate compared to the total in the Palestinian territory, 2007/2008*

Governorate	Poultry numbers in thousands	
	Layers	Broilers
Nablus	48	2,286
Palestinian territory	2,695	27,682

Source: PCBS. 2009g.

It is worth noting that poultry numbers increased by 141% in the year 2010 since the year 2007/08. The total number of layers reached up 65, 995 birds and the broilers to 5,560,411 birds in the year 2010 (PCBS, 2011b).

## Beehives Production

The total number of beehives in the Nablus Governorate reached 5,892 in 2007/08 (PCBS, 2009g). However, in 2010, the total number of beehives in the Nablus Governorate reached 3,778, which represents a 35.8% decrease since the agricultural year 2007/8.

Yet, the total production value of the beehive industry in Nablus reached approximately US \$251,000; making up 8.7% of the total annual honey production value in the Palestinian territory for the year 2007/2008 (and 11% of West Bank production) (PCBS, 2009g) (See table 26). In 2007/8, compared to 1997/1998, there is shown to be 130% increase in the number of beehives and 80.6% increase in the total production value of beehives in the Nablus Governorate (PCBS, 1998; PCBS, 2009g).

Table 26: Number of beehives in the Nablus Governorate compared to the total for the Palestinian territory, 2007/08

Region	Beehives		
	Modern	Traditional	Total
Nablus	5,669	223	5,892
Palestinian Territory	63,782	2,951	66,733

Source: PCBS, 2009g

In terms of available agricultural data for Nablus, the PCBS, in cooperation with the Palestinian Ministry of Agriculture (MoA), have produced a number of comprehensive yearly agricultural surveys for the Palestinian territory; up until the year 2007/8. These use a number of base-line measures with a combination of agricultural/ socio-economic indicators to report on the agricultural, food security and economic status of the Palestinian territory; disaggregating data at a regional and Governorate level as far as is possible.

Most of the information used in this section pertaining to agricultural statistics in Nablus has been taken from the last agricultural survey reporting session, of the agricultural year 2007/8. This is due to the fact that this has the most comprehensive range of statistics covering multiple indicators at a Governorate and (where methodologically appropriate) gender disaggregated level, and production values. However, the PCBS has more recently produced an 'Agricultural Census' for the year 2010, which contains a range of statistical data relating to agricultural indicators for the West Bank and Gaza for 2010. In many places, information is presented at a Governorate level; thus, where this is available for Nablus, 2010 data from this census has been compared with the same indicators for 2007/8, to report on any changes in the sector during this period. It is worth noting that the year 2010 statistics did not include the production value of agricultural sectors.

### 3.3. Forests and nature reserves

The forested area in the Nablus area is a rich base for biological diversity since it is a habitat for diverse types of forests and numerous plant and animal species. There are almost 3,296 dunums of forested area in Nablus Governorate (ARIJ – GIS Unit, 2010) (see map 6). This comprises 4.2% of the total forested area in the West Bank. In addition, there is a large area (24,063 dunums) of shrubs and herbaceous vegetation cover in the governorate. There are 39,355 dunums of nature reserves<sup>14</sup> in Nablus governorate that were declared by Israel<sup>15</sup> (ARIJ – GIS Unit, 2011) (see map 7).

<sup>14</sup> This area was included in the land use land cover but under different classification as graded in the land use land cover table (20).

<sup>15</sup> There are doubts concerning the declared protected area in terms of their biological components and the reasons behind their declaration, since in most cases the protected areas overlaps with Israeli closed military areas, settlements, and degraded lands with

Nablus has 8 forested areas including Khelat Issa, Jesair Al Malaqi, A'asira Al Shamalyeh, Jerseem Mountain, A'ebal Mountain, A'zmout, Al Tur Mountain, Deir Hatab forests; five of them are under the Israeli control and subjected to Israeli military practices, settlement expansion, etc. Despite the limited size of forests in this area, Nablus governorate is located in the Central Highlighted ecosystem which record the highest number of plant families among the different ecosystems in the West Bank. Here, there are 105 different plant families growing, with the Zannichelliaceae, Araliaceae, Elatinaceae, and Meliaceae families growing only in this ecosystem (ARIJ, 2007). Forests play a crucial role in landscape and green coverage preservation, in addition to watershed protection in the oPt.

Nablus forests are characterised by their Mediterranean ecosystem, where the temperatures are moderates and rainfall amounts are medium to high. The climate in general tends to be semi-dry to humid east to west and south to north in the governorate. Most of Nablus forests are located on fertile soil types such as Alluvial and Brown soils, and some beds of Terra Rosa soils (ARIJ – GIS Unit, 2011). Forests in Nablus Governorate are Planted coniferous forests and are diverse in nature; compromised mainly of the Pine forests and natural maquis (ARIJ – GIS Unit, 2011).

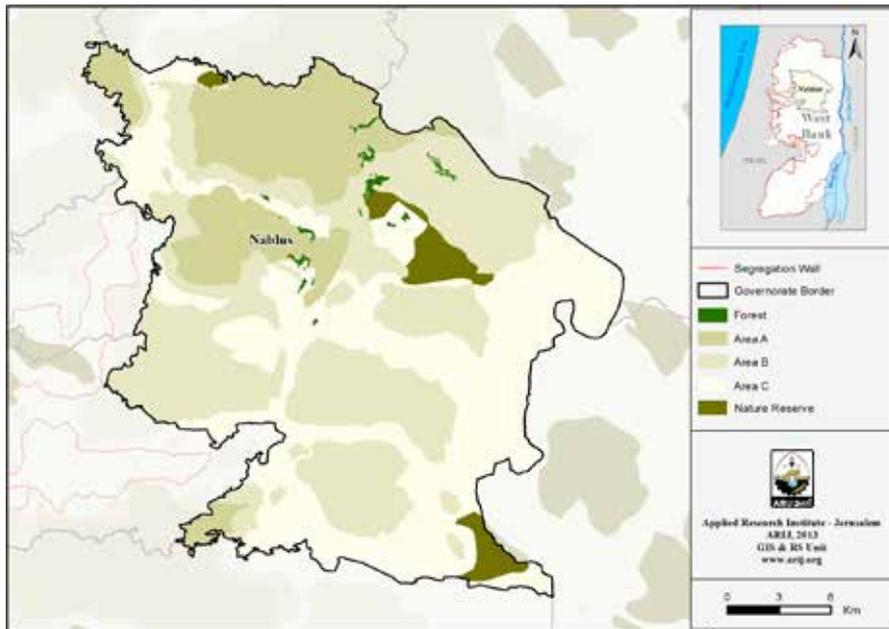
The Coniferous planted forest is characterized by its diverse planted and natural plantation in reference to its distance from the mountains belt including mainly *Pinus halapensis*, *P. Brutia*, *P. Pinea*, *Cupressus sempervirens*, *Eucalyptus* spp., *Quercus Calliprinos*, *Pistacia lentiscus*, *P. Palaestina*, *Styrax officinalis*, *Rhamnus lycioides* (Palaestinus), *Phillyrea media*, *Laurus nobilis*, *Ceratonia siliqua*, *Arbutus andrachne*, *crataegus azarolus* and *Cercis siliquastrum* ( Abu A'yash. A., et-al. 2007).

All Nablus forested areas are governmental lands. However up to 33.4% of them are located within geopolitical Area C<sup>16</sup>, where the forests are under Israeli control and the MoA has no management authority (ARIJ – GIS Unit, 2011) (see map 7). It is worth noting that the forests in Nablus being part of the Central highlands ecosystem then it well-known habitats for 57 endemic species and several endangered wild plants such as *Salvia ceratophylla*, *Salvia eigii* (Labiatae) and *Sclerochloa dura*. Rare species in the Central Highlands ecosystem form 58.7% of total rare species growing in the West Bank (ARIJ, 2007); hence there is a need for further management and conservation to sustain such a valuable natural resource.

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minor or no biodiversity which do not fit the international standards/criteria of a declared protected area 16 44.8% in Area B, and rest in Area A (see section 4.2 below).

Map7: Forested areas in Nablus Governorate

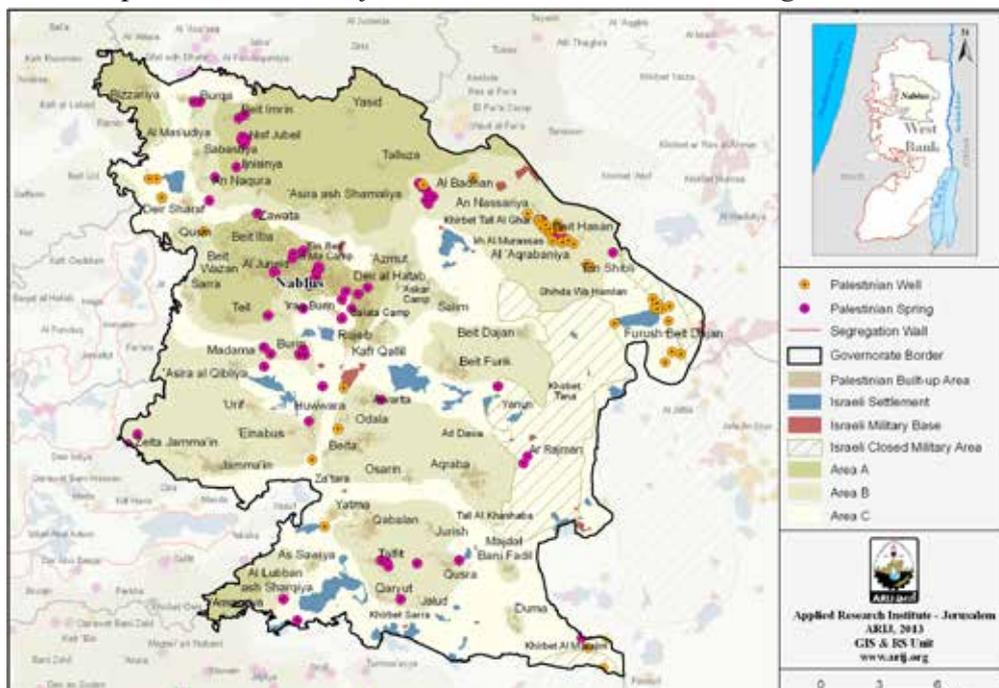


Source: ARIJ – GIS Unit, 2012a

### 3.4 Water Resources

The renewable water resources in Nablus Governorate consist primarily of groundwater resources, all of which are located in the North-Eastern aquifer system. In 2011, around 13.6 MCM were produced from the North-Eastern Basin from the groundwater Palestinian wells and springs located in Nablus Governorate (PWA, 2012). From this amount 9.8 MCM are discharge from Wells, and the remaining 3.8 MCM are discharge from springs (PWA, 2012) (See map 8). Around 2 MCM of water discharged from wells are utilized for agricultural purposes (PWA, 2012). However, the Israeli water company Mekorot controls two wells located within Nablus Governorate.

Map 8: Distribution of Ground Water Wells in Nablus governorate

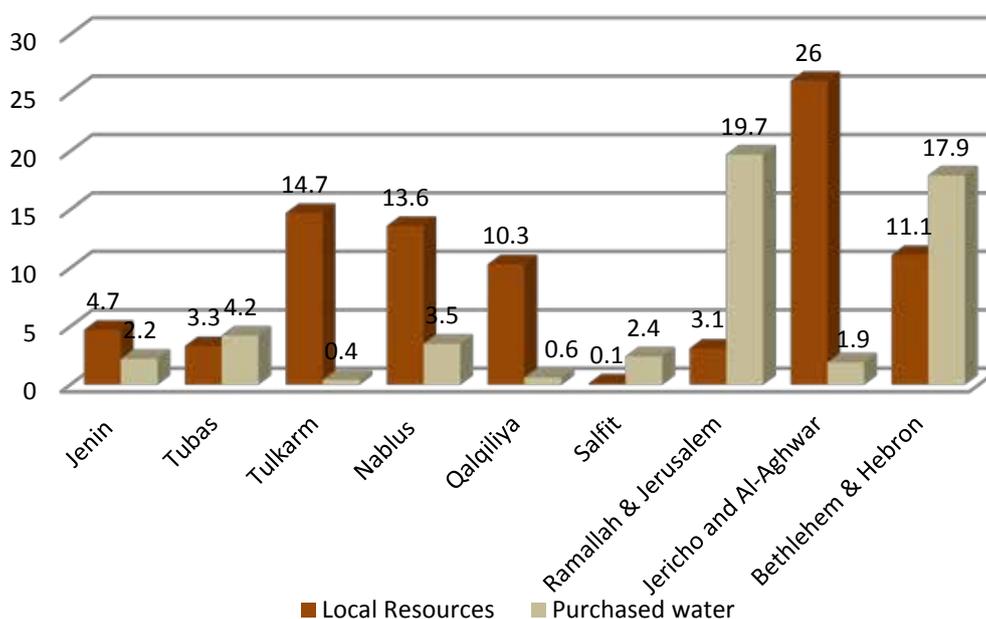


Source: ARIJ - GIS Unit, 2013

Drinking water resources in the Nablus governorate are divided into two main sources: (1) local resources mainly from wells and springs and (2) purchased resources from Mekorot, the Israeli National Water Company. The quantity of water purchased from Mekorot in Nablus Governorate for domestic use in 2011 was 3.5 MCM, which represents about 23% of the total water resources supplied to the governorate. This was set at a cost of 2.4 NIS/cubic meter (PWA, 2012).

Figure 5 shows the amount of domestic water from local resources and water purchased from Mekorot by each West Bank governorate. This includes water supplied to the Israeli side as per agreement (2.4 MCM) and it can be seen that Nablus Governorate has (6.6% of the total purchases of the West Bank). This is because the governorate has good local groundwater resources (PWA, 2012).

Figure 5: Quantity of Domestic Water from local resources and water Purchased from Mekorot in



Source: PWA, 2012

There was a water deficit as the domestic water supply did not meet the needed quantity of water. Table 27 below shows the needed, available and consumed quantities and deficit of water in Nablus Governorate in 2011.

Table 27: Needed, available and consumed quantities and deficit in Nablus Governorate, 2011

Governorate	Needed Quantities of Water(1)	Water Supply for Domestic Sector	Deficit	Water Consumed	Actual Deficit
	MCM/year	MCM/year	MCM/year	MCM/year	MCM/year
Nablus	19.1	15.0	4.1	10.2	8.9

(1) Needed quantity of water is calculated based on a water supply of 150 l/c.d

Source: PWA, 2012.

The water losses in Nablus governorate in 2011 were 4.8 MCM, representing 32% of the water supplied to Nablus governorate (PWA, 2012). The Governorate suffers from an actual deficit in domestic water supply, as the amount of consumed water was much less than the needed quantity.

The West Bank Water Department and Mekorot is responsible for the water supply services for 19 localities in Nablus Governorate, whereas the municipalities / village councils are responsible in 19 localities. The remaining 14 localities in the governorate have no water network. In 2011, the average per capita water consumption rate in Nablus Governorate was 80 liter/capita/day, which was more than the average per capita allocation in the West Bank, which is 73 liter/capita/day (PWA, 2012). However, the consumption rate varies from one locality to another in the Governorate; in some villages such as Zawata, Sarra, Beit Dajan, Kafr Qalil, Odala, 'Einabus, Zeita Jamma'in, Jamma'in, Qabalan, As Sawiya, Yasid, Iraq Burin, Tell, Madama, 'Asira al Qibliya, 'Awarta, 'Urif, Osarin, Aqraba, Yanun, Jurish, Qusra, Talfit, Majdal Bani Fadil, Qaryut, Jalud and Duma this rate is less than 70 liter/capita/day, which is below the World Health Organization's (WHO) recommendation of a minimum consumption of 100 liter/capita/day.

The population of Nablus Governorate is distributed over 52 localities, 38 of which are served by the water network and 14 localities with a total population of around 50,600 people are not served. However, in some localities such as Beit Imrin, 'Asira ash Shamaliya, Beit Hasan, Beit Wazan, Sarra, Kafr Qallil, Furush Beit Dajan, 'Einabus and Zeita Jamma'in localities, the water network coverage in the served communities may not be complete (partial coverage). These un-served neighborhoods are dependent upon water tankers, rainwater collection systems, and agricultural wells and springs (PWA, 2012). Rainwater collection systems are frequently used in the Governorate because the area receives a comparatively high amount of rainfall, reaching around 660 mm annually.

### **3.5. Waste Water**

Practices for managing domestic wastewater in Nablus Governorate are limited to the collection of wastewater by cesspits except for in 11 out of 52 localities (approximately 58% of the population). These 11 localities are connected to wastewater collection networks (many of which are old and poorly-designed, causing frequent floods and leaks), whilst other communities discharge their wastewater into streams (Wadi Al-Sajour and Wadi Zumer) and cesspits (without appropriate lining, which facilitates its infiltration into the soil) and open channels (ARIJ – WERD, 2013). Vacuum tanks are hardly used due to the high cost of this type of service. Therefore, wastewater is almost uncontrolled, and this causes serious environmental problems and health risks.

Approximately 15 MCM of wastewater is generated annually in Nablus Governorate (PWA, 2012). However, wastewater generation could be significantly higher than the figures reported herein as these figures were calculated based on the total volume of municipal freshwater minus the total volume of unaccounted-for water and the result was multiplied by 80%.

Around 4 MCM annually of wastewater is collected from Wadi Zumer in West Nablus area and treated in WWTP's inside the green line (PWA, 2012).

A new central wastewater treatment plant (WWTP) is now under construction to serve the western area of Nablus city and the nearby five villages with the support of the German Government and funded through the German Development Bank (KfW) (PWA, 2012). The WWTP will be located over 10 dunums of Land of Deir Sharaf village, and will serve around 55% of the population of Nablus city in addition to those living in the villages of Deir Sharaf, Beit Wazan, Zawata, Beit Iba and Qusin (total population of 110,000 persons) (PWA, 2012).

### 3.6. Solid Waste

Practices for managing solid waste in Nablus governorate include the collection of waste and its transportation to Zahret El Finjan Landfill in Jenin Governorate or random dumpsites (either inside or outside the locality boundaries). Currently the collected solid waste in 35 localities in Nablus governorate is transferred to Zahret El Finjan Sanitary Landfill. In 16 localities the collected solid waste is transferred into random dumping sites and in the remaining one locality people burn the collected solid waste beside their houses. Open burning of collected solid waste is practiced in all the uncontrolled dumping sites.

Across Nablus Governorate, the responsibility for solid waste collection is split between several authorities. The Joint Service Council for 'Service Planning and Development' (JCspd), the village councils and municipalities.

Based on the solid waste generation rate<sup>17</sup> and population number, it is estimated that Nablus Governorate produces approximately 335 tons of domestic solid waste daily, which equates to 122,223 tons annually (ARIJ – WERD, 2013). 72.2 tons solid waste are collected and dumped daily in open and uncontrolled dumping sites and the remaining quantity 262.8 tons are dumped in Zahret El Finjan Sanitary Landfill (ARIJ – WERD, 2013).

### 3.7 Environmental Conditions

#### Water Crisis

Israeli occupation forces control ground water resources and prevent Palestinians from drilling new wells and water networks or developing existing water infrastructure. Moreover, the Israeli water company Mekorot has a significant role in controlling West Bank water resources, as Mekorot controls two wells located within Nablus Governorate. Mekorot wells essentially serve the Israeli settlements with low water prices, whilst selling Palestinians their own water at higher prices. The quantity of water supplied to the illegal Israeli settlements in the West Bank is massive when compared to the quantity supplied to the Palestinians. Israeli settlers' water consumption for household use is more than 350 liter/day, while the Palestinians in some localities in Nablus Governorate consume as little as 60 liter/day such as Zawata, Kafr Qalil, Odala, Qabalan and As Sawiya. Other localities such as Yasid, Iraq Burin, Tell, Madama, 'Asira al Qibliya, 'Awarta, 'Urif, Osarin, Aqraba, Yanun, Jurish, Qusra, Talfit, Majdal Bani Fadil, Qaryut, Jalud and Duma do not even have a water network (ARIJ –WERD 2013).

Water projects and infrastructure within Area C require an official permit from the Joint Water Committee (JWC) and the Israeli Civil Administration. This is a long, bureaucratic procedure, which often results in permission being denied. Projects executed without prior approval are demolished by the Israeli military. Recently, there has been a significant increase in these demolitions include storage and rainwater cisterns, wells, springs, water tanks, and agricultural ponds. Some of these structures were demolished under the pretext that they were constructed without obtaining the relevant Israeli permit, but many were demolished without reason. In Nablus governorate mainly in An Nassariya and Beit Hassan localities, eight wells were demolished in the year 2011, purposes with 369 persons were affected (UN OCHA 2012). Three wells are used for agricultural purposes (UN OCHA 2012). This aggressive policy is intentionally restricting, displacing, and eliminating Palestinians from specific areas of the West Bank. These are areas of particular strategic interest

<sup>17</sup> Per capita solid waste generation rate for rural localities is 0.7kg/day and for refugee camps and urban localities is 1.05 kg/day

to Israel, usually because they are designated for the expansion of Israeli settlements and related infrastructure (ARIJ, 2012).

### **Wastewater Management**

The absence of a public sewage network in most of the localities in Nablus Governorate means that most residents use cesspits for the disposal of wastewater, and/or discharge wastewater in streets and open areas. These actions cause environmental damage, health problems, and the spread of epidemics and diseases in the area. The use of cesspits pollutes the groundwater and springs, making it inappropriate for human consumption. This is due to the fact that most cesspits are built without lining, which allows wastewater to seep into the ground and avoids the need to use sewage tankers.

Since the occupation of the West Bank in 1967, Israel has neglected development projects for water and sanitation in the Palestinian Territory, although the Israeli authorities collect taxes from the Palestinians. The proceeds of these taxes are mostly invested in the interests of the occupation authorities and settlers; the Israeli state has broken agreements related to the protection of the environment and sustainable use of natural resources throughout the peace process. Although the Palestinian Authority has drawn up plans and strategies related to wastewater treatment, Israel has deliberately impeded the implementation of such water and sanitation projects (ARIJ, 2010).

The costs of the treatment of the wastewater collected from Wadi Zumer in West Nablus area and treated in WWTP's inside the green line are directly deducted every month by the Israeli government from the Palestinian clearance account without any positive valuation of the treated waters, this water is reused by the Israelis (PWA, 2012). One of the PWA aims to reduce the quantities of wastewater flowing in trans-boundary streams by constructing large scale treatment plants like the one in West Nablus.

### **Solid Waste Management**

The capacity of local and national institutions to provide good solid waste management services is obstructed by factors such as the Israeli authorities refusing to grant licenses to establish landfills because the appropriate land is within Area C and under Israeli control. This hinders the development of the solid waste sector. The lack of a sanitary landfill presents a serious risk to human health and a source of pollution to the groundwater and soil through the leachate produced from the solid waste. It also produces odors and distortion of the landscape.

***PART FOUR:***  
***Geo-Political Status in the Nablus***  
***Governorate***

#### 4.1. Geography and Location of Nablus Governorate

Nablus Governorate lies in the northeastern part of the West Bank, on a total area of 605.012 km<sup>2</sup> and is home to 372,620 Palestinian inhabitants (PCBS, 2014). Nablus Governorate has been targeted by the Israeli occupation ever since 1967 when Israel occupied the West Bank including East Jerusalem and the Gaza Strip and announced about its settlement program in the occupied territory to consolidate its control over the Palestinian Land. (See Map 9)

Map (9): *Qalqiliya Governorate location in the occupied State of Palestine*



Source: ARIJ - GIS Unit, 2013

## 4.2. The Nablus Governorate under Oslo Accords

The Oslo II Interim Agreement signed in September 1995 between the Palestinian Liberation Organization (PLO) and Israel, concluded Israel withdrawal from more areas of the West Bank and that occupied territory be divided into Areas “A”, “B” and “C”, which are designated as varying levels of control. Accordingly, the Israeli Army withdrew from lands classified as areas “A”, and the Palestinian National Authority assumed complete control. This marked the first time that a Palestinian Government retained sovereignty over any Palestinian land. In area B, Palestinians have full control over the civil administration and Israel continues to have overriding responsibility for security. While in Area C, the Palestinians have responsibility for civil life such as economics, health, and education; while, Israel retains full control over security and administration related to the territory.

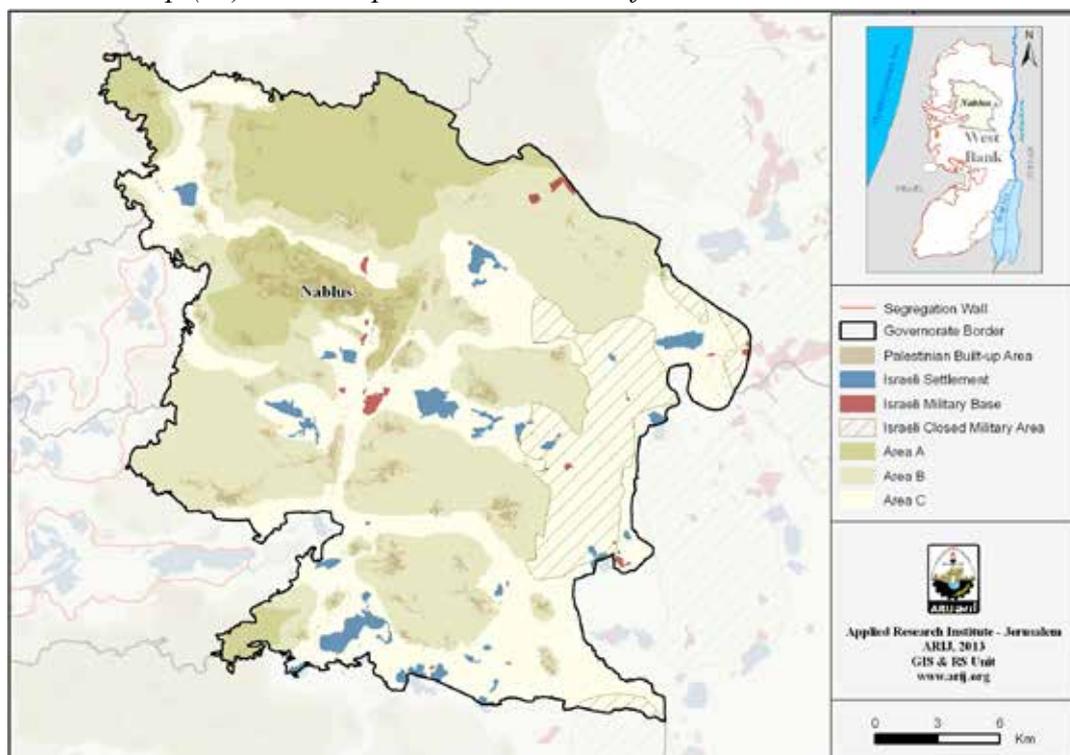
Under the signed Oslo Accord, Nablus Governorate was classified into areas “A”, “B” and “C” as a part of a withdrawal process to be completed before the end of 1999, prior to the instigation of negotiation over the final status issues. Table 28 illustrates the geo-areas distribution in Nablus Governorate:

*Table 28: The Geopolitical Divisions of Nablus Governorate*

Area	Area in Km2	%
Area A	113418	18.8
Area B	239634	39.6
Area C	251960	41.6
Nature Reserves	0	0
<b>TOTAL</b>	<b>605012</b>	<b>100</b>

Source: The Geo-Informatics Department, ARTJ - 2014

*Map (10): The Geopolitical Divisions of the Nablus Governorate*



Source: ARIJ - GIS Unit, 2013

### 4.3. The Israeli Settlements' Activities in Nablus Governorate

The Israeli settlement activities in Nablus commenced following the Israeli Occupation of the West Bank and Gaza Strip in 1967. Israel's settlements' activities seek to unilaterally and illegally create facts on the ground that will ultimately undermine the Palestinian presence and sustainability and create Israeli majority on the lands extending from the Jordan River to the Mediterranean Sea. The occupation, the confiscation of Palestinian land, the uprooting of fruitful trees and the demolition of Palestinian houses, have proceeded virtually without interruption. As from January 1994 and till June 2014, the Applied Research Institute – Jerusalem (ARIJ) had recorded the Israeli violations against Palestinian land and properties in the Nablus Governorate and the confiscation of more than 79 thousand dunums (79km<sup>2</sup>) of Palestinian land for the various Israeli purposes. Moreover, more than 117 thousand fruitful trees were either uprooted, burnt, cut down or razed and 331 Palestinian houses were demolished throughout this period. Table 29 indicates the Israeli violations in the Nablus Governorate.

*Table 29: Israeli violations in Nablus Governorate during the years 1994 & June 2014*

Year	Land Confiscation (in Dunums)	No. of Uprooted Trees	No. of Demolished Houses	No. of Houses threatened of demolition
1994	0	85	4	0
1995	40	0	0	0
1996	3000	1050	0	0
1997	16781	10700	10	0
1998	13420	8120	13	0
1999	9162	11215	3	0
2000	7134	8159	0	2
2001	4260	25360	6	0
2002	308	1350	30	3
2003	44	2725	84	3
2004	727	6165	35	5
2005	9730	4650	5	50
2006	4312	345	16	50
2007	1046	8060	17	3
2008	238	4220	1	8
2009	1989	5697	5	169
2010	864	2496	25	69
2011	659	7697	39	4
2012	3987	1493	17	33
2013	851	6933	7	30
Jun-14	904	540	14	23
<b>Total</b>	<b>79456</b>	<b>117060</b>	<b>331</b>	<b>452</b>

*Source: The Urbanization Monitoring Department - Israeli Violations Database, ARIJ - 2014*

#### 4.4. Israeli Settlements and Settlements' Outposts in Nablus Governorate

The June 1967 war was followed by a propagation wave of Israeli settlements in the Nablus Governorate. Today, there are 14 Israeli settlements accommodating more than 14,000 Israeli settlers infringing on the Palestinians land in the Nablus Governorate. These settlements are built on a total area of 15,382 dunums (15.4km<sup>2</sup>), which constitutes around 2.5 percent of the Governorate's total area (see Map 10). See table 30 of Israeli Settlements in Nablus Governorate

Table 30: Israeli Settlements in the Nablus Governorate

No.	Israeli Settlement	Date of Establishment	Population 2011	Israeli Built-up Area
				Total Area 2013 in Dunums
1	Bracha	1982	1769	636
2	Eli	1984	3259	3088
3	Elon Moreh	1979	1595	1298
4	Gittit	1973	315	554
5	Hamra	1971	184	1485
6	Itamar	1984	1181	3299
7	Ma'ale Levona	1983	793	229
8	Mekhora	1973	136	375
9	Migdalim	1984	153	194
10	Mizpe Rahel (Shvut Rahel)	1992	600	963
11	Rechelim	1991	223	380
12	Shavei Shomron	1977	792	924
13	Shilo	1978	2407	634
14	Yizhar	1983	1106	1321
<b>Total Area</b>			<b>14,513</b>	<b>15382</b>

Source: The Geo-Informatics Department, ARIJ - 2014

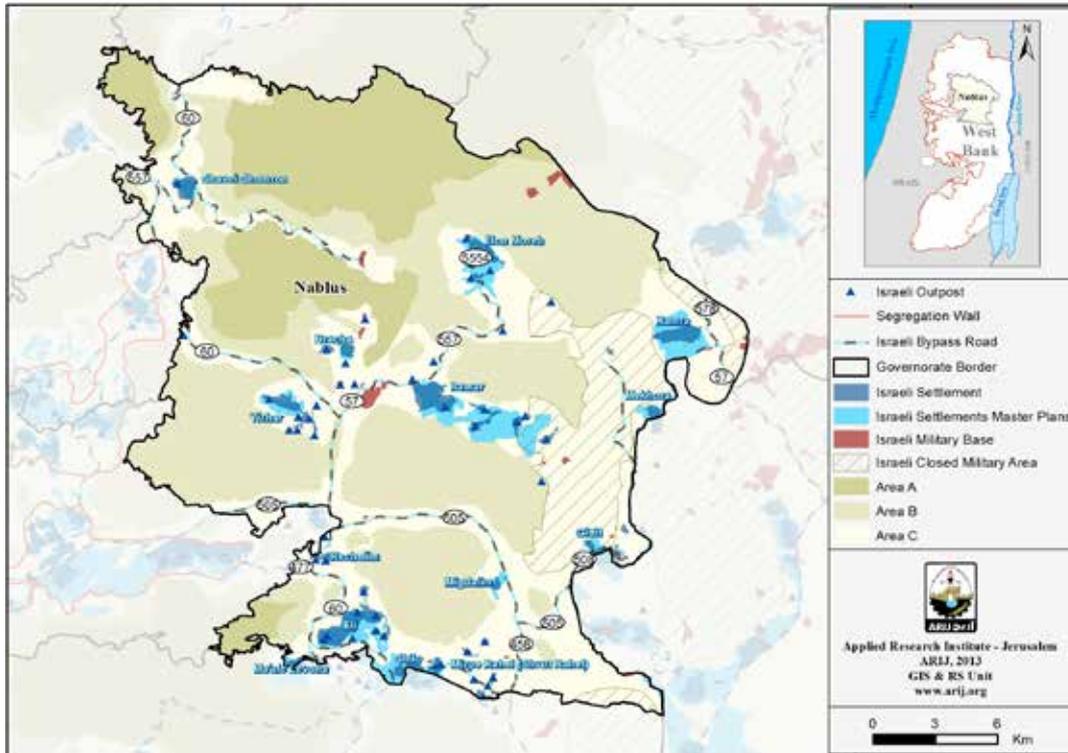
##### 4.4.1 Israeli Settlements Master plan

Since the occupation of the Palestinian territory in 1967, the successive Israeli governments invested substantial resources in establishing and expanding the Illegal settlements in the occupied State of Palestine (oPt), both in terms of the land area they occupy by expropriating as much as possible of Palestinian land, and of population. As a result of this policy, around 700,000 illegal Israeli settlers today live in 196 settlements, including tourist settlements, and 232 outposts distributed all over the West Bank, including East Jerusalem, all built in contradiction to the international law.

In 1991, the Israeli civil administration (ICA) operating in the occupied West Bank (oWB) designated master plans for Israeli settlements spread throughout the oWB, taking into consideration the allocation of additional land for the establishment of new settlements in the future and the expansion of the existing ones<sup>18</sup>. The master plans issued by the ICA in 1991 stood at 486.137 dunums of land (486.1 km<sup>2</sup>, 8.6% of the total area of the WB), which is seven times the size of Israeli settlements area existed until the year 1991 which stood at 69,000 dunums (69 km<sup>2</sup>, 1.2% of the total area of the WB) of land.

<sup>18</sup> Those settlements existed until the year 1991, when the Israeli Civil Administration published the master plans.

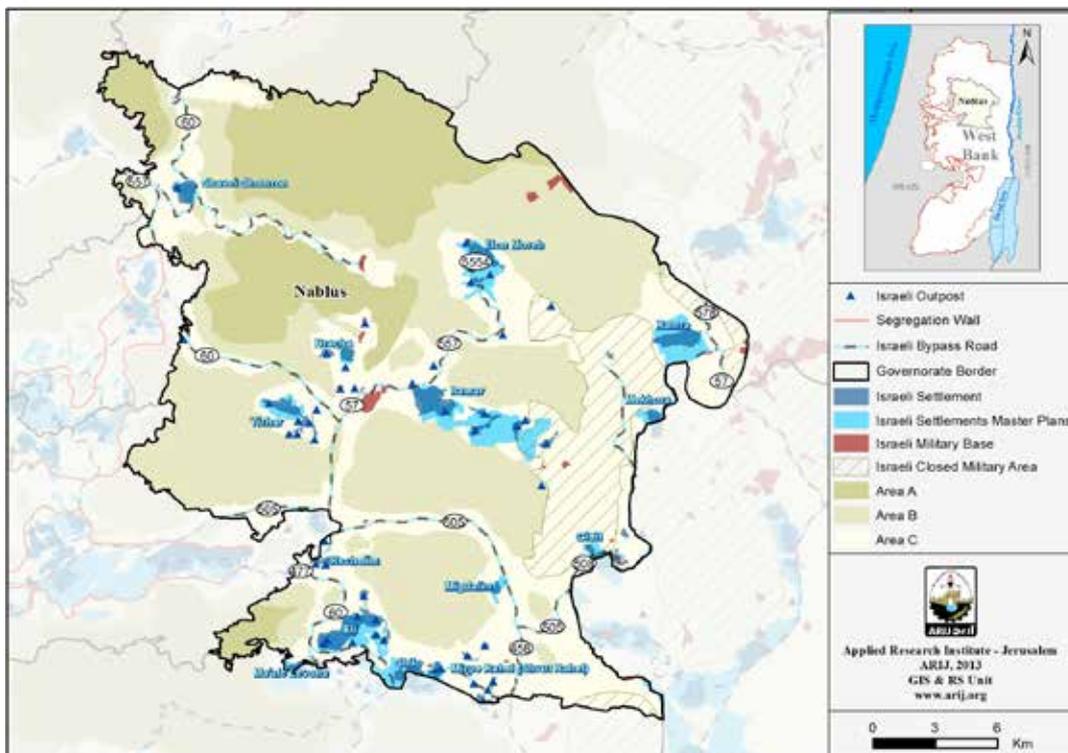
Map (11): Israeli Settlements in the Nablus Governorate



Source: ARIJ - GIS Unit, 2013

In case of Nablus Governorate, the actual land area set for the existing settlements with future expansion sites (according to the master plans) is calculated at 29,246 dunums; which is almost two times larger than Israeli settlements current built- up area in Nablus Governorate. The following map (12) shows the areas of Israeli settlement, including the master plans in Nablus Governorate.

Map (12): Israeli Settlements and Settlements Master Plans in the Nablus Governorate



Source: ARIJ - GIS Unit, 2013

#### 4.4.2 Israeli Settlements outposts in Nablus Governorate

Furthermore, between 1996 and 2013, the Israeli settlers in the Nablus Governorate established 46 locations, which became known as settlements' outposts<sup>19</sup>. The Israeli outposts' phenomena started back in the year 1996 by Israeli settlers who contrived to take control of hilltops in the occupied Palestinian territory. The outposts are located mostly within 1-4 miles distant from an existing settlement. The Israeli government did not provide those settlers with direct financial support rendering them to be illegal and unauthorized but simultaneously providing infrastructural support through the Israeli Army who would also provide them with security blanket to carry out their attacks against Palestinian lands. The aim of the outposts established by Israeli settlers, in an indirect manner of collaboration with the Israeli government, was best described in 1998 by the Israeli Agriculture Minister at that time and former Prime Minister Ariel Sharon; to take as much Palestinian land as possible before "losing them to Palestinians in negotiations"<sup>20</sup>. Table 31 lists the Israeli settlements' outposts that were established in the Nablus Governorate.

*Table 31: Israeli Settlements' Outposts in the Nablus Governorate*

No.	Closest Mother Settlement	Date of Establishment	Outpost Name	No. of structures
1	Mitzpe Rahel	Jan-98	Adei Ad	45
2	Mitzpe Rahel	Jan-02	Habayit Haadom (Red House)	7
3	Mitzpe Rahel	Feb 2001 - Nov 2002	Habayit Ha'adom	9
4	Mitzpe Rahel	Jan-03	Kida/ Adi Ad north	28
5	Mitzpe Rahel	NA	Shvut Rachel	1
6	Mitzpe Rahel	Jan-97	Ahiya	30
7	Mitzpe Rahel	Jan-00	Esh Kodesh	17
8	Eli	NA	Eli West	1
9	Eli	Feb 2001 - Nov 2002	Hakaron (South of Eli)	1
10	Eli	NA	Eli West closer to Eli	2
11	Eli	Jan-98	Hayovel Section	37
12	Eli	Jan-02	Hakaron	2
13		Jan-98	Nof Harim	38
14	Eli	NA	Eli Northeast neighborhood	1
15	Eli	Jan-99	Palgei Mayim (Hirbet a Shuna)	37
16	Rachelim	Jan-01	Rachelim South	14
17	Rachelim	Jan-01	Rachelim	NA
18	Kfar Tapuah	Feb 2001 - Nov 2002	South Kfar Tapuah	2
19	Itamar	Feb 2001 - Nov 2002	South East Itamar	7
20	Itamar	Jan-99	Hill 777	15
21	Yizhar	Jan-02	South Yizhar/Mizpe Yizhar	2
22	Yizhar	Jan-03	Givat Ariel/ Ariel Hill	2

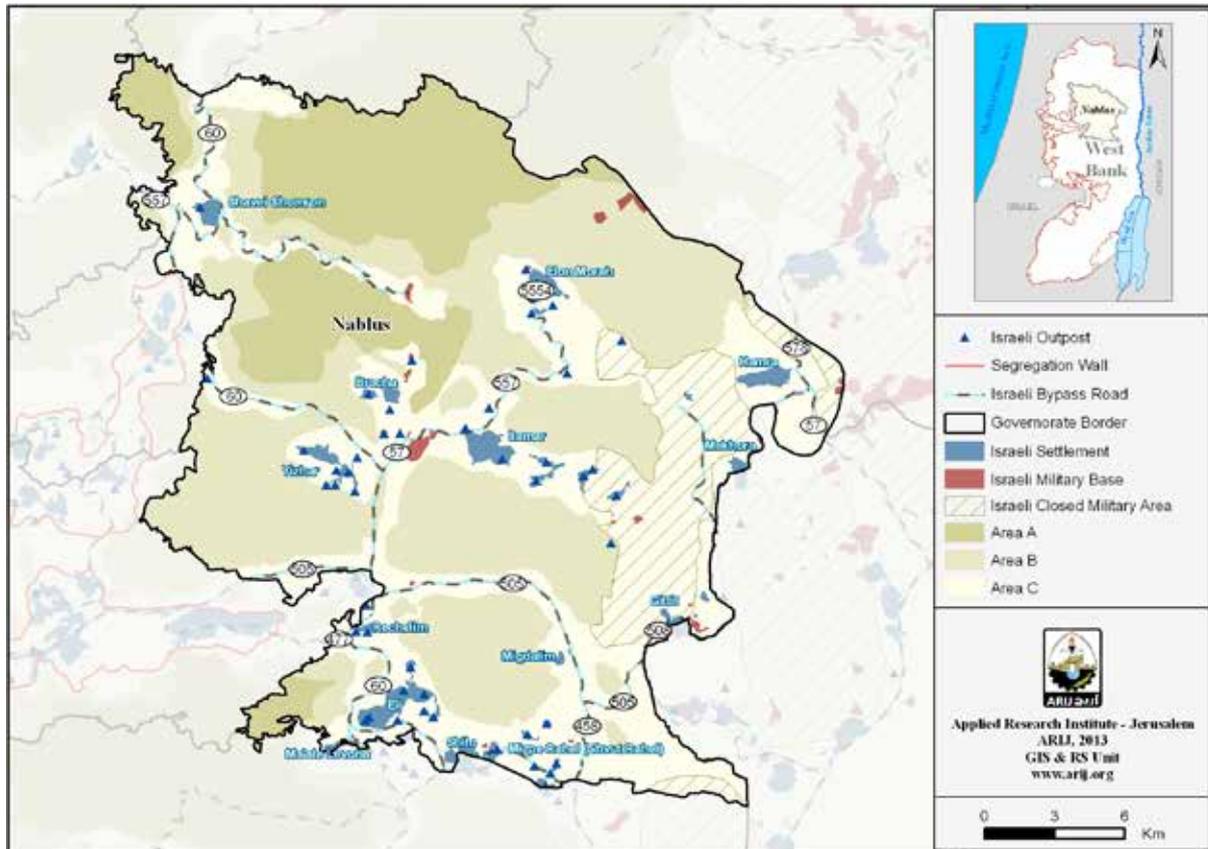
19 Settlements' outposts is a technique improvised by Israeli officials in cooperation with the Israeli settlers; under which the latter seize hilltops and certain locations in close proximity to existing settlements in order to annex the location to the settlement – if it exist within the master plan area of the settlements - all of which under the direct protection of the Israeli Army

20 «Everybody has to move, run and grab as many hilltops as they can to enlarge the settlements because everything we take now will stay ours ...everything we don't grab will go to them.» Ariel Sharon addressing a meeting of militants from the extreme right-wing Tsomet party, Agence France Presse, November 15, 1998.

No.	Closest Mother Settlement	Date of Establishment	Outpost Name	No. of structures
23	Yitzhar	Jan-01	Hill 725	7
24	Itamar	Jan-99	Hill 782	16
25	Itamar	Jan-98	Giva't Olam (avri Ran Ranch)	10
26	Yitzhar	Jan-98	Lehavat Yishar	13
27	Yitzhar	1996- Feb 2001	Yishar South	5
28	Itamar	Jan-98	Hill 836	24
29	Itamar	Jan-98	Hill 851	40
30	Itamar	Jan-96	Hanekuda/(the point)	30
31	Yitzhar	1996- Feb 2001	Shalhevet Yitzhar East	19
32	Yitzhar	Jan-99	Ahuzat Shalhevet/ farm	17
33	Bracha	Jan-99	Sneh Ya'akov	22
34	Bracha	Jan-02	Bracha South/Ein Horon	3
35	Itamar	Jan-02	Itamar North	1
36	Bracha	Jan-02	Hill 778	2
37	Itamar	Dismantled By Ben Eliezer	Itamar North construction site	1
38	Bracha	Jan-98	Baracha A	8
39	Moshe Zar	Jan-02	Havat Gilad / Gilad Farm	14
40	Elon Moreh	Jan-02	Elon Moreh South	1
41	Bracha	Jan-07	Mitzpe Yosef	4
42	Elon Moreh	Jan-99	Skali's Farm , point 792	7
43	Elon Moreh	Feb 2001 - Nov 2002	Elon Moreh Darom	3
44	Elon Moreh	2002 - June 2003	South Elon Moreh	2
45	Elon Moreh	Feb 2001 - Nov 2002	North Elon Moreh	2
46	Shavei Shomron	Jan-01	Mitzpe Rehav'am Shavei Shomron West	7
<b>Total</b>				<b>556</b>

Source: The Geo-Informatics Department – ARIJ, 2014

Map (13): Distribution of Israeli Settlements and Settlements' Outpost in the Nablus Governorate



Source: ARIJ - GIS Unit, 2013

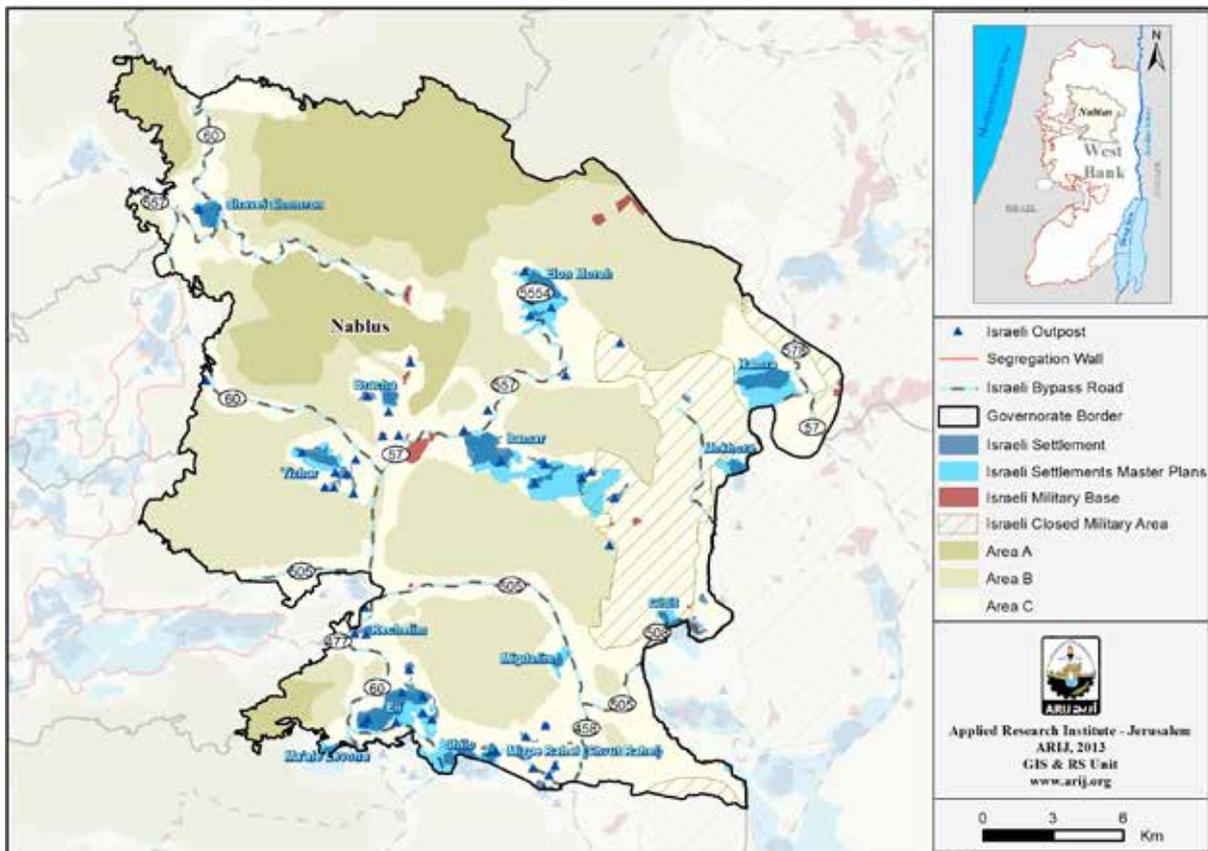
## 4.5 Projected Israeli Plans in Nablus Governorate

### 4.5.1 Israeli settlements with “National Priority” in Nablus Governorate

On December 12, 2009, the Israeli cabinet approved a new map on national Priority areas in Israel that was presented by the Israeli Prime Minister, Benjamin Netanyahu. Accordingly, it was decided to give funding to 557 Israeli communities including 90 Israeli settlements in the occupied West Bank, in the fields of education, housing, employment and infrastructure. The total budget of the overall plan is about 2 billion shekels, of which 110 million shekels were designated for Israeli settlements in the occupied West Bank. The map included all the Israeli settlements in the Nablus Governorate, they are: Bracha, Itamar, Ma’ale Levona, Yetzhar, Gittit, Migdalim, Hamra, Rechalim, Shavei Shomron, Eli, Alon Moreh, Kfar Taphuh, Shilo and Mitzpe Rahel.

While the Israeli government is promoting settlement construction in Israeli settlements in the occupied State of Palestine, it doesn’t stop its efforts to displace Palestinians in the area from their homes and lands, and ignores the obstacles which stand in the face of the Palestinian society growth, development and construction imposed on Palestinians in the occupied territory and most especially in the eastern segregation zone. It also ignores the Return of Palestinian refugees’ who were displaced from their home towns by Israel in 1967, and manipulate the demographics of area for the benefit of its colonial ambitions. (See Map 14)

Map (14): Israeli settlements with “National Priority” in Nablus Governorate



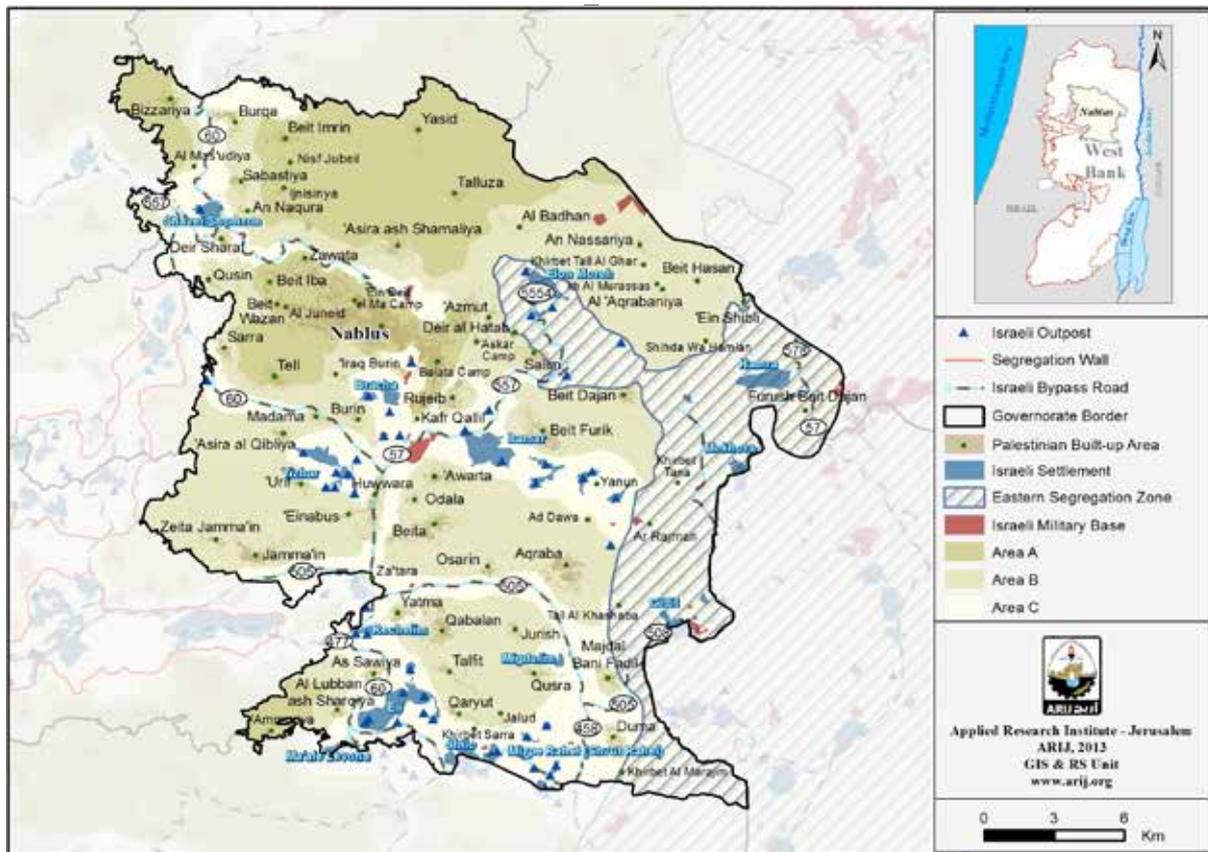
Source: ARIJ - GIS Unit, 2013

#### 4.6 Nablus Governorate and the Israeli Eastern Segregation Zone

In June 2002, the Israeli Government launched its policy of unilateral segregation within the occupied State of Palestine by establishing a Segregation Zone along the western terrains of the occupied West Bank and reaches to the Green Line. The Israeli Segregation Zone covers substantial and significant land areas, rich with natural resources (water aquifers) as it runs along the western part of the West Bank from north to south, seizing the most fertile agricultural lands, isolating Palestinian communities in enclaves, undermining the territorial contiguity between the Palestinian villages and cities, controlling the natural resources, and encapsulating and protecting most of the illegal Israeli settlements. In parallel, Israel has created a de facto Eastern Segregation Zone along the eastern terrains of the occupied West Bank Territory. It covers an area of 1664 Km<sup>2</sup> (29.3% of the West Bank total area) of which, Israel maintains military control on an area of 1,580 km<sup>2</sup>, representing 28% of the West Bank. Israel controls the area with checkpoints established along the Jordan Valley and the Dead Sea shores.

The eastern part of Nablus Governorate lies within the West Bank's eastern Segregation Zone. This section covers a total area of 103.2km<sup>2</sup>, (17.1% of the total Governorate area). The vast majority of the land was declared closed military area by the Israeli Government since 1967. Accordingly, the Israeli Army prohibited any kind of development to that area, utterly became sort of inaccessible to Palestinians. (See Map15)

Map (15): The eastern part of Nablus Governorate within the West Bank's eastern Segregation



Source: ARIJ - GIS Unit, 2013

#### 4.6.1 Targeting Palestinian communities in the Eastern Segregation Zone (in Nablus Governorate).

Following the Israeli occupation of the West bank and the Gaza strip in 1967, Israel targeted the eastern part of the West Bank (ESZ) by announcing vast areas of it as ‘Closed Military Area,’ so as to cease Palestinian urban development and economic development. These actions further aimed at displacing Palestinians from their place of residence, so that Israel could further implement its colonial plans in the area and strengthen its presence in the occupied State of Palestine. This policy constituted an obstacle to the growth of Palestinian communities in the eastern segregation zone, as most of Palestinian communities are located in areas where construction is prohibited unless a building permit is guaranteed by the Israeli Civil Administration.

In Nablus Governorate, several Palestinian communities were severely and continuously targeted by the Israeli Occupation Authorities under the guise of unlicensed building, such as Kherbit At Tawil in Aqraba village, Duma village, Kherbit Tel Al Khashaba, Furush Beit Dajan, Ar Rajman, Al Aqrabaniya and Beit Furik. These communities are vulnerable and always face the threat of eviction and displacement.

While Israel is using its leverage to loot and confiscate as much as it could from Palestinian lands in order to accomplish its major plan of controlling the Eastern Segregation Zone. Moreover, Israel realizes the importance of that zone as it, on one hand, constitutes a defense shield to its future borders from the Jordanian side, and on the other hand, it imposes facts on the ground in the long term so it would be impossible to withdraw from it in any future negotiations with the Palestinians. For that reason, Israel works in a systematic approach in that zone to take full control over the

area by building new settlements and expanding existing ones, erecting outposts and establishing military bases for its army. By doing so, Israel ensures that this zone will remain in its hands as long as possible.

#### **4.7 The Israeli defined “Corridors area” in Nablus Governorate**

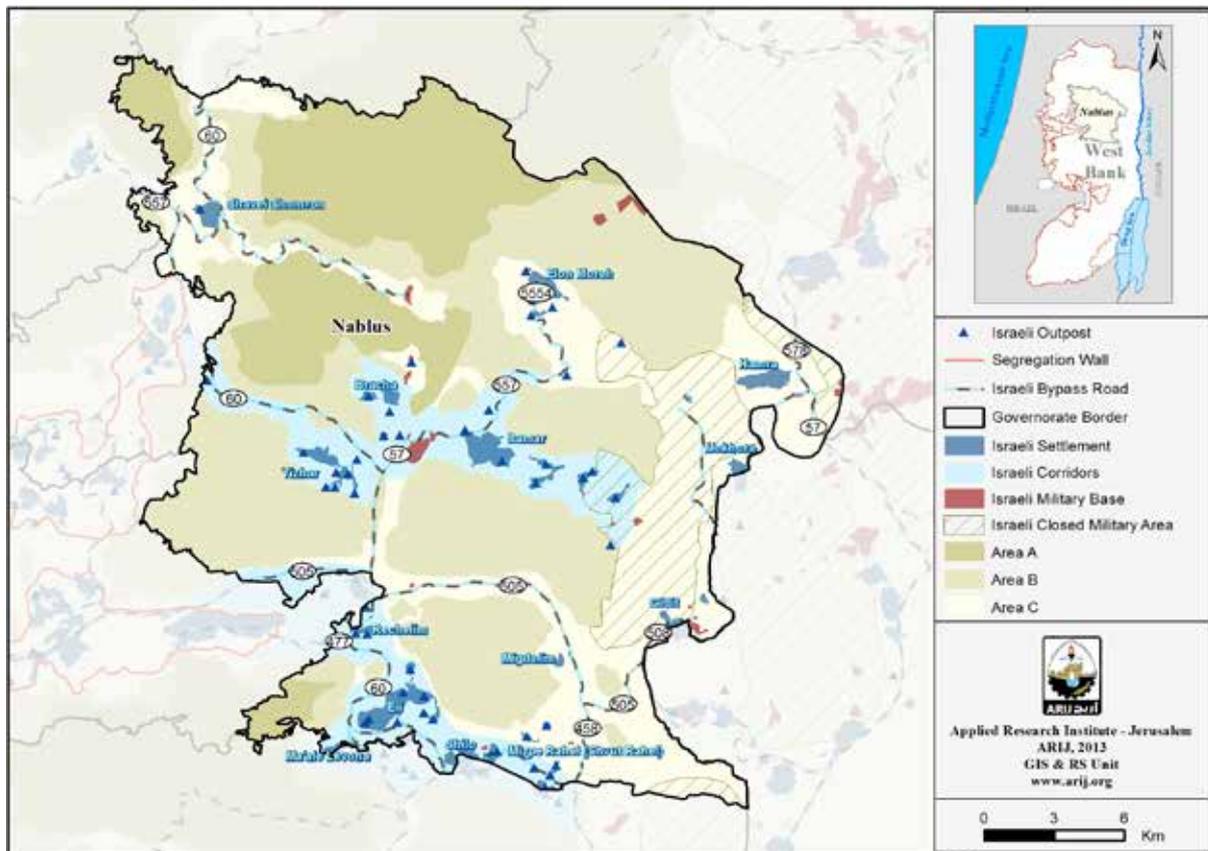
Israel’s plans do not stop at snatching 13% (733 Km<sup>2</sup>) along the western terrains of the occupied West Bank territory with the ongoing - near complete construction of the Segregation Wall and the isolation of 29% (1664 Km<sup>2</sup>) along the eastern terrains, but it breaks up the area remaining ‘in between’ into three regions (north, central & south); separated from each other by Israeli controlled corridors enclosing Israeli settlements clusters, earth mounds, cement blocks, popup checkpoints and permanent checkpoints and comprise 26% of the Nablus Governorate’s area (156.9 Km<sup>2</sup>). The northern region includes four Palestinian Governorates; Jenin, Nablus, Tulkarem and Qalqilyia; the central region includes Ramallah and Jericho Governorates; whereas the southern region includes Bethlehem and Hebron Governorates. As for East Jerusalem, the Israeli plan did not include it in any of the regions but was considered a natural extension of the Israeli territorial grounds.

The Israeli settlements located in the corridors area are the ones that Israel plans to hold on to undermine any peace agreement with the Palestinians and even if Israel have the intention to evacuate more of its settlements in the occupied West Bank territory, it does not include the settlements located in the corridors area. The strategic locations of these corridors allows Israel to maintain access with the Jordan Valley area where 38 Israeli settlements (population +13,000) are located and also comprehensive and firm grip of the internationally recognized boundary with Jordan against any case scenario of infiltration or attack.

In addition, Israeli settlers living in settlements located in the corridors will have a secure and direct access with Israel, but more importantly, the existence of these settlements will sustain life to Israel’s colonization project. On the other hand, the locations of the corridors will facilitate Israeli incursions into Palestinian controlled areas, more than that, Israel will ensure to disperse of Palestinian’s aspiration of a geographically contiguous, independent State of their own.

There are eight Israeli settlements (out of 14 located in Nablus Governorates) in the Israeli defined “corridors area” of Nablus Governorate and are considered of high strategic and political importance to Israel. The settlements are Bracha, Itamar, Yetzar, Shilo, Eli, Ma’ale Levona, Rechalim and Mitzpe Rahel. The settlements constitute 6.8% of the total corridors area and house more than 11,000 Israeli settlers. (See Map 16)

Map (16): The Israeli defined “Corridors area” in Nablus Governorate



Source: ARIJ - GIS Unit, 2013

## 4.8. Israeli Checkpoints and Bypass Roads

### 4.8.1 Israeli Checkpoints (obstructions) in Nablus Governorate

Checkpoints have always been standard procedures of the Israeli Occupation Army in the West Bank and Gaza Strip territory. However, it was not until the second Palestinian Intifada of September 2000 that the Israeli Army increased the number of operating checkpoint to unprecedented levels next to restrictions imposed on the Palestinian population attempting to cross these checkpoints.

Furthermore, over the past 14 years, the behavior of the Israeli soldiers stationed at these checkpoints has taken a turn beyond the usual hassle treatment to more acts that falls within manners of vicious and sadistic behaviors; as many Palestinians of different segments of the Palestinian society; students, teachers, patients, medical staff and employees were subjected to various forms of Israeli cruelty, which involved beating, humiliation (striping of cloths and sitting on a dirt mud), held for hours under the burning sun or the cold weather before they are allowed to cross a certain checkpoint. The fallouts of the Israeli soldiers' acts at checkpoints had it tormenting affect on the Palestinian society; causing social ties cutoff, economic separation between districts, rise in the unemployment level, and disruption to daily life activities and internal emigration. In addition to that, medical services became dramatic as medical staff, doctors and patients were denied access through checkpoints; including medical emergencies, and at many occasions patients were carried on wheel chairs or animals (donkeys) as even ambulances were not allowed to cross; causing patients death in many cases. Moreover, the Israeli soldiers at checkpoints impose a time restriction on the movement on many checkpoints; and even though it is not clear that the Israeli Army authorizes such actions; it is all the same, since similar and much more brutal actions went on with impunity.

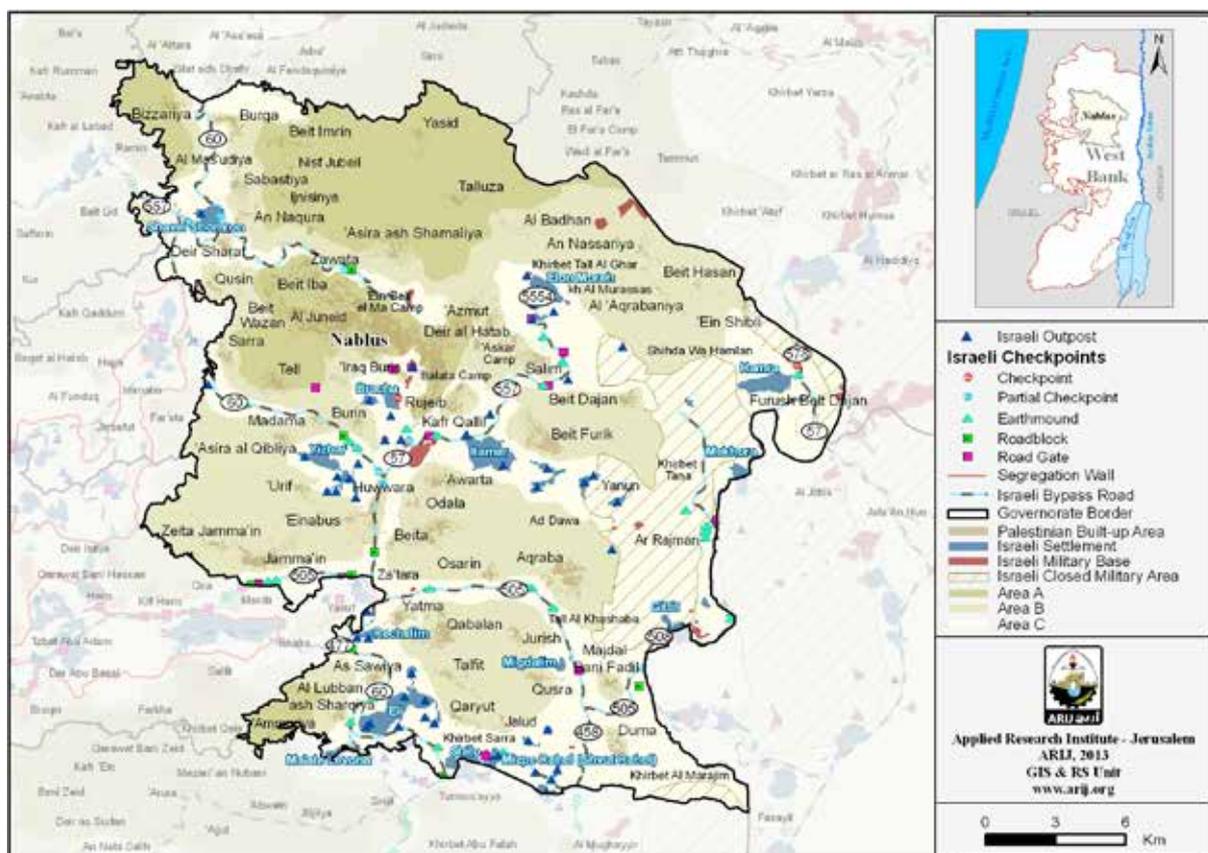
Nablus Governorate is chained with all sorts of Israeli checkpoints or obstructions to indicate all forms used by the Israeli Army to restrict the Palestinian’s movement, which include: cubical cement roadblocks, earth mounds, manned checkpoints and agricultural gates, tunnels, secondary roads iron gates, etc. Over the years of the second Intifada which erupted in September 2000, obstructions reached to 62 different forms of obstructions. Table 30 lists the number and various types of obstructions established by the Israeli Army to restrict and confine the movement of +372 thousand Palestinian residents of the Nablus Governorate.

Table 32: Israeli Checkpoints in the Nablus Governorate

Type of Checkpoint	No. of Checkpoint
Checkpoint	3
earth mound	29
Partial Checkpoint	8
Road Gate	12
Roadblock	10
<b>Total</b>	<b>62</b>

Source: The Geo-Informatics Department, ARIJ - 2014

Map 17: Israeli Checkpoints (obstructions) in Nablus Governorate



Source: ARIJ - GIS Unit, 2013

#### 4.8.2 The Israeli bypass roads in and around Nablus Governorate

The term “Bypass Roads” did not come into use until the signing of Oslo agreement between the Israelis and Palestinians in 1993 to indicate designated roads for the Israeli Army and settlers use, to bypass Palestinian towns and communities in the context of the Israeli Army redeployment.

From that point on, Israel intensified its efforts to increase the magnitude of the bypass roads in the occupied State of Palestine as a part of its policy to coerce facts on the ground; ultimately affecting the outcome of negotiation with the Palestinians; including the establishment of a viable contiguous Palestinian State. The majority of the West Bank area is Area “C”, which hold all Israeli settlements and consequently the Israeli bypass roads that pierce at many classified “A” and “B” areas establishing a physical obstruction between two controlled Palestinian areas.

Along with launching a vigorous settlements program following the Israeli occupation of the West Bank and Gaza, back in 1967, the consecutive governments of the state of Israel adopted a separation concept based on the creation of an Israeli controlled road grid system, which will work to facilitate the construction of Israeli settlements and the Israeli settlers movement between occupied territory settlements and Israel and eventually incorporate the Israeli created and controlled road grid system in the occupied territory with the road grid system in Israel. The Israelis built these roads under the pretext of “security needs”; a term that presented the Israeli Army with legitimate excuse to expropriate Palestinian lands; a procedure that proved its efficiency before when the Israeli Army would expropriate Palestinian lands under the “security needs” pretext to establish an Army base, which later on is turned to Israeli settlers control who would turn it on their part into a civilian inhabitant area. For Israel, that was the only available option or the only loop to bypass the international law, which considers, expropriating land for any purpose other than military use a “grave breach”.

Israel also argued the military role of the settlements and the bypass roads to its security, which allowed the Army to expropriate private Palestinian lands to build settlements and its roads; Israel also argued that the roads’ building will also benefit the local Palestinian population who would be allowed to travel on these roads. Furthermore, the Israeli built roads on confiscated Palestinian lands thus contributing immensely to stimulate the habitation of the Israeli settlements, which encouraged the Israeli settlers to take initiative and construct roads on their own, but would later on be endorsed and adopted by the Israeli Army to cast a shadow of legitimacy on these roads. In addition to its role in connecting settlements, the Israeli built roads worked to restrain the development of the Palestinian communities in the West Bank by creating de-facto obstructions to areas designated for development.

Prior to the outbreak of the second Intifada in September 2000, Palestinians had almost complete access to these bypass roads, except at time when the Israeli Army is on security alerts that Palestinians are no longer allowed to travel on the bypass roads or would have to undergo through a security check conducted by the Israeli Army border patrols, which would take hours at times. However, following the 2000 Intifada, Palestinians accesses to virtually all bypass roads became forbidden; unless they are in possession of a special permit issued by the Israeli civil administration. Later on, the Israeli Army would refer to bypass roads where Palestinians are no longer allowed to travel on as “sterile” roads; meaning that these are Palestinians free roads.

Today, almost 131 km fall under the bypass roads category in the Nablus Governorate between constructed and planned, all come to comply with the Israeli settlements program and to facilitate movement of these settlements with each other and with Israel, beyond the 1949 Armistice Line (Green Line). Palestinians today are denied access to the bypass roads network and are blocked from them with cement blocks, trenches, earth-mounds, barbwire and iron gates; all under the pretext of military and/or security purposes. (See Map 18)

## 4.9 Israeli Military Orders in the Nablus Governorate

Israel has always tried to escape its status as an occupier of the Palestinian State by attempting to justify its existence as an administrative to the occupied territory. For this reason, Israel resorted to military orders to validate its belligerent acts, using its infamous “military purposes” pretext to violate the international humanitarian laws and the United Nations Security Council resolutions.

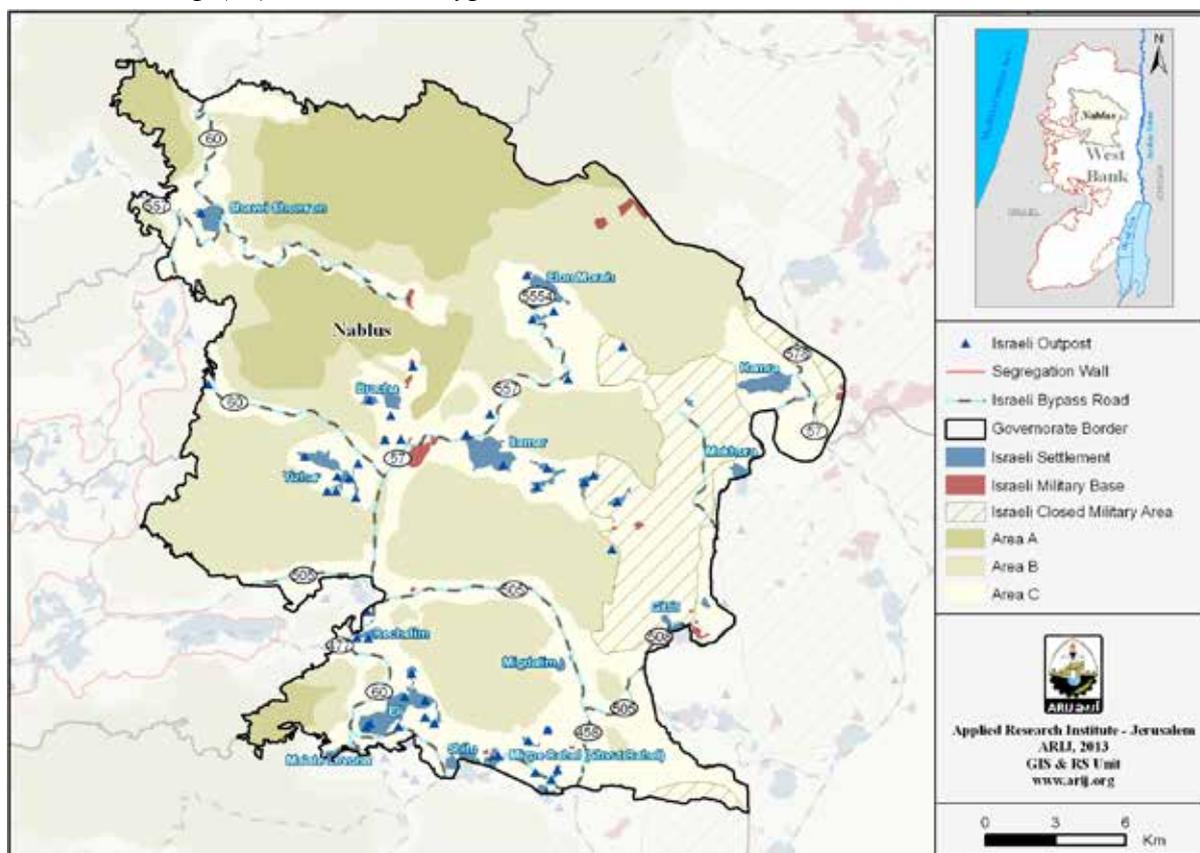
Following the signing of the Oslo Accord in 1993, Israel has issued thousands of military orders to contemplate its plans to consolidate its control over the occupied territory starting from building and expanding settlements and bypass roads, confiscation lands, etc. and ending up with the Segregation Wall. In Nablus Governorate, the Israeli Army issued hundreds of military orders to carry out its plans, many of which were not made available for public; but to those of concern to this day, the ones that were available were recorded as listed in Table 33.

Table 33: Israeli Military Orders that were issued and are available in Nablus Governorate

Type of Military Order	No. of Orders	
Halt of Construction orders		110
Land Confiscation	State Land	2
	Closed Military Area	4
	Military Uses	10
<b>Total</b>		<b>126</b>

Source: ARIJ Military Orders Database, 2014  
<http://orders.arij.org>

Map (18): The Israeli bypass roads in and around Nablus Governorate



Source: ARIJ - GIS Unit, 2013

#### **4.10 Israeli Settlers' attacks on land and property in Nablus Governorate**

The Israeli settlers attacks across the past decade in particular has definitely been upgraded from being violent attacks associated with severe hostility toward the Palestinian civilian population to an organized attacks orchestrated that terrorize and imperil the lives and way of life the Palestinian population. Spanning over 47+ years of occupation, the Israeli settlers have been nibbling away of the occupied territory to accommodate nearly 700 thousand settlers residing in 196 settlements and 232 outposts. Their existence and ever-growing numbers there has grounded any suspicious that the much debated two-state solution has been brought to a halt. The Israeli settlers' attacks on Palestinian and their properties in the occupied State of Palestine remains to be a main concern especially that such attacks are disregarded by the Israeli occupation Army; in fact much of such attacks are carried out under their protection and direct sight. The settlers premeditated attacks has grown over the past decade in number of and also in types of attacks, which have grown more violently than even the Palestinians expected over years. The Israeli settlers stopped at nothing to turn the Palestinians lives upside down, destroying the agricultural lands, uprooting and burning trees, contamination of cultivated fields and wells.

Statistics shows that settler violence against Palestinians and their property in the occupied State of Palestinian is on the rise. Between January and December 2013, some 755 settlers attacks were carried out by Israeli settlers, of which, 196 attacks were recorded in Nablus Governorate (during 2013). Additionally, from January to June 2014, 72 settlers attacks were committed (out of 395 in all WB Governorates) and mostly in areas that are in close proximity of Israeli settlements such as the settlements of Yetzhar, Itamar, Shilo, Mitzpe Rahel and Esh Kodesh outpost and affected the nearby Palestinian communities.

#### **4.11 To summarize**

The Israeli unilateral colonial activities in the Nablus Governorate constitute a belligerent acts against the Palestinian population and their belongings. The encroachment of the Israeli activities on Nablus Governorate's lands is a growing danger that threatens the development, the sustainability, and the very existence of the Palestinian people as in throughout the occupied State of Palestine. It does not only deprive the Palestinians from their valuable agricultural and grazing lands; but it also puts physical barriers to their natural growth and disconnects them from each other.

Despite international denunciation, Israel is proceeding with its unilateral plans to build settlements and military bases and confiscate large tracts of the Nablus Governorate's lands for the various military purposes.

***PART FIVE:***  
***General Needs Assessment in the Nablus***  
***Governorate***

## 5.1. Development priorities and needs in Nablus Governorate

During ARIJ's field survey of the localities in Nablus Governorate, a general needs assessment was conducted. As mentioned in the methodology section, each locality's needs were ascertained through the use of surveys which collected information on a set of relevant indicators provided in a questionnaire sheet and completed by community leaders. The survey showed that 98% of the localities in Nablus Governorate are in need of paving and constructing new roads, 90% of the localities stated that they need new schools to cover increasing student numbers, and 48% of the localities are in need of clinics and healthcare centers. In addition, the water networks in Nablus Governorate need a great deal of attention, as 54% of the localities stated that they need to extend the water network to cover new built up areas.

As for the agricultural sector, 84% of the localities are in need of agricultural land rehabilitation.

Table 34: Development priorities and needs in the Nablus Governorate, 2012/2013

Needs by sector	Strongly needed	Needed	Not a priority
<b>Infrastructural needs (%)</b>			
Rehabilitation and paving of roads	98	2	0
Rehabilitation of old water networks	42	12	46
Extending the water network to cover new built up areas	54	8	38
Constructing new water networks	31	2	67
Rehabilitation/ construction of new wells or springs	35	13	52
Construction of water reservoirs	56	8	36
Construction of a sewage disposal network	86	6	8
Construction of a new electricity network	21	15	64
Providing containers for solid waste collection	83	8	9
Providing vehicles for collecting solid waste	46	4	50
Providing a sanitary landfill site	23	4	73
<b>Health needs (%)</b>			
Construction of new clinics or health care centers	48	4	48
Rehabilitation of old clinics or health care centers	38	6	56
Purchasing of medical equipment and tools	77	4	19
<b>Educational needs (%)</b>			
Construction of new schools	90	2	8
Rehabilitation of old schools	73	8	19
Purchasing of new equipment for schools	85	8	7
<b>Agricultural needs (%)</b>			
Rehabilitation of agricultural lands	84	8	8
Building rainwater harvesting cisterns	63	16	21
Construction of barracks for livestock	56	25	19
Provision of veterinary services	64	19	17
Provision of seeds and hay for animals	69	23	8
Construction of new greenhouses	37	13	50
Rehabilitation of greenhouses	17	12	71
Provision of field crops seeds	79	15	6
Provision of plants and agricultural supplies	81	15	4

## 5.2. Participatory Rapid Appraisal (PRA)

The Participatory Rapid Appraisal (PRA) is a qualitative research tool used to identify problems and formulate solutions. Its aim is to enable people to access an issue and formulate their own plans to address it. PRA emphasizes the empowerment of local people. It enables them to assume an active role in analyzing their problems and potentials in order to come up with solutions.

The PRA approach was chosen for this study because it provides guidelines for the fast appraisal of a certain situation in the field, the main advantages being:

1. It involves a relatively short time in the field
2. It focuses on a few specific topics
3. It involves the community and their institutions

In light of the above, nine PRAs were conducted at the locality level, where community leaders, farmers, women's associations and local co-operatives' representatives (agricultural, environmental, societal etc.) were in attendance. Another general workshop took place at the Governorate level, where a number of governmental bodies (including representatives from the Nablus Governorate Office, the Nablus Education and Higher Education, Agriculture and Health Directorates), and relevant NGOs working in Nablus attended. During the workshops, a discussion among the attendees was opened in order to result in a comprehensive vision and analysis for the gaps and needs of the Nablus Governorate as a whole entity.

During the PRA workshops, each community presented us with its points of strength, weakness, threats, proposed solutions, and needs priorities in relation to agriculture, water, and environment. Based on these results, the following needs and development projects were proposed at locality level.

The sum of the proposed projects that were concluded from the ARIJ field survey and the conducted PRAs at both locality and Governorate levels is presented in Part six.

***PART SIX***  
***Proposed Development Projects***  
***(Agriculture, Water & Environment)***  
***for the Nablus Governorate***

One objective of the “Village Profiles Needs Assessment in the Nablus Governorate” project is to present development programs and activities to assist in improving the livelihood of the population in the Nablus Governorate.

Based on the survey and the Participatory Rapid Appraisal (PRA) workshops conducted in the Nablus Governorate; the following proposed concept projects were developed to address the major needs for livelihood improvement in the governorate with main focus on water, environment and agriculture interventions.

### 6.1 Proposed Project: Rehabilitating Agricultural lands, and constructing/rehabilitating rainwater harvesting cisterns in Nablus Governorate to diversify the crops production especially in areas C.

<b>Project Title</b>	<b>Rehabilitating Agricultural lands, and constructing/rehabilitating rainwater harvesting cisterns in Nablus Governorate to diversify the fruit trees production.</b>		
<b>Project Duration</b>	48 months		
<b>Estimated Budget</b>	The project will construct/rehabilitate 530 rainwater cisterns and rehabilitate 10,600 dunums of arable lands (mainly in area C) in 24 localities in Nablus Governorate.  <b><u>The total budget is estimated at around US \$ 8,347,500; The farmers will contribute by 15% of the actual cost (cash/in-kind)</u></b>		
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), agricultural associations and NGOs.		
<b>Targeted Areas</b>	The project will target 24 localities in Nablus Governorate as follows:		
	<b>No.</b>	<b>Locality</b>	<b>land rehabilitation (dunum)</b>
	1	Beit Hasan	300
	2	An Naqura	300
	3	Beit Imrin	400
	4	Furush Beit Dajan	500
	5	Beit Dajan	500
	6	Duma	250
	7	Sarra	500
	8	Yatma	400
	9	Salim	800
	10	Qabalan	500
	11	Jamma'in	500
	12	Asira ash Shamaliya	500
	13	Madama	500
	14	Burqa	200
	15	Beit Iba	250
	16	As Sawiya	600
	17	Deir al Hatab	500
		<b>Rain water cisterns</b>	
			30
			20
			20
			15
			15
			20
			30
			20
			30
			25
			40
			20
			10
			20
			10
			30
			30

Targeted Areas	18	Burin	500	10
	19	‘Einabus	500	30
	20	Beit Furik	600	10
	21	An Nassariya	250	20
	22	Al Lubban ash Sharqiya	400	20
	23	Aqraba	400	30
	24	Awarta	450	25
	<b>Total</b>		<b>10,600</b>	<b>530</b>

The targeted localities contained agricultural areas and many of them contain wells and/or springs. Thus, agriculture contributes as a main or secondary source of income for the people of these communities. All the selected communities have most of their lands located in area C and they are suffering from land confiscation. Also, in many locations the farmers faces obstacles to reach their lands and water especially in area C due to the settlement activities or the occupation military practices. Thus, there is a need to support these farmers and ease their access to the existing lands and increasing their cultivated areas through rehabilitating additional area. This will encourage farmers to continue cultivating their lands and increase the area of cultivated and production areas. This approach fits with the recent strategy of Ministry of Agriculture “Resilience and Development” First strategic objective: Ensure resilience of farmers and their attachment to their land, while fulfilling the contribution of the agriculture sector in providing requirements for development of the State of Palestine. This strategic objective will be achieved through the realization of intensifying efforts to rehabilitate the agriculture sector in Area C. To meet this need and improve the existing cultivation system, protect Palestinian agricultural land and water resources, enhancing food security and the improving the livelihood of marginalized people in the targeted localities, rainwater harvesting cisterns will be rehabilitated /constructed for supplementary irrigation, wherever needed and land will be rehabilitated.

Beneficiaries	The project will serve up to 10,600 dunums of the arable areas (8.8% of the arable lands of the Governorate) in 24 communities of Nablus Governorate, through enhancing farmers’ access to their lands and water resources, increasing the existing agricultural areas (increasing the Governorate agricultural area by 12.4%) and the production capacity through supplementary irrigation or irrigated where springs and ground water is available. Up to 2,300 farming families will be benefited from the project.
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<b>Project Description</b>	Nablus Governorate is affected by the Israeli settlement activities, land confiscation and the aggression of Israeli settlers on the farmer's lands. Also, there are many settlements, military zone and outposts distributed in the Nablus Governorate which are threatening the agricultural activities and limiting the access of the Palestinians to their lands. Thus, the farmers need the support to stay cultivating their lands and to bring back the available arable lands into production system. This approach will assist in increasing food security, and reducing land confiscation by the occupation authorities. Furthermore, enhancing farmers access to their lands is an important issue that means more land owners will come back to cultivate and taking care
<b>Project Description</b>	of their lands and utilize the available water resources. This project will assist in increasing the role of the agricultural sector in improving food security, diversifying crop production, increasing job opportunities, better livelihood and increasing the rainwater management.  The project will create an opportunity of 120,000 working days (paid and in-kind) for land rehabilitation and cisterns construction/rehabilitation.
<b>Project Objectives</b>	<ul style="list-style-type: none"> <li>• To enhance farmers' access to their lands in the Nablus Governorate, especially in area C, and threatened areas.</li> <li>• To increase the total cultivated area in the Nablus Governorate under rainfed, supplementary irrigation and irrigation conditions.</li> <li>• Increase the utilization of available water resources including well, spring and harvesting the rainwater.</li> <li>• To create job opportunities for both genders and thus decreasing the high unemployment rate in the area.</li> <li>• To reduce land degradation through land rehabilitating lands and cultivating them.</li> <li>• To assist farmers in increasing their income through cultivating new lands.</li> <li>• To assist local authorities in implementing their strategic development plans.</li> <li>• To improve the livelihood of the targeted families.</li> <li>• To encourage the participation of existing agricultural cooperatives in partnership with Ministry of Agriculture.</li> </ul>

<b>Project Activities</b>	<ul style="list-style-type: none"> <li>• Announcing the launch of related Ministries (MoA, and PWA and local authorities) and other NGOs and CBOs.</li> <li>• Communicate with local authorities in the targeted communities.</li> <li>• Form project community committees (steering committee and technical committee for each locality).</li> <li>• Land rehabilitation and cistern rehabilitation and construction: <ul style="list-style-type: none"> <li>a. Announcing about the activity in public places of targeted communities and receive the applications (land rehabilitation and cisterns rehabilitation/construction).</li> <li>b. The selection to benefit from water harvesting cisterns is prioritized for the areas lack for the presence of wells and/or springs.</li> <li>c. Determining beneficiaries according to the project selection criteria.</li> <li>d. Follow up the implemented activities by the targeted beneficiaries and repay them according the achieved progress in the field work.</li> </ul> </li> <li>• The project technical committee will approve the accomplishment of the construction activities to finalize the project.</li> <li>• Preparing the final reports and disseminating the results.</li> <li>• Capacity building: <ul style="list-style-type: none"> <li>a. Provide the project beneficiaries with required knowhow to improve their agro-activities.</li> </ul> </li> </ul>
<b>Expected Results</b>	<ul style="list-style-type: none"> <li>• 10,600 dunums of agricultural/arable lands become accessible to the farmers cultivated.</li> <li>• 530 rainwater harvesting and storage cisterns with a capacity of 70 m3 rehabilitated/constructed with total storage capacity of 37,100 m3 annually.</li> <li>• 120,000 working days (paid and in-kind) working days created through implanting the project main interventions.</li> <li>• Agricultural production and profitability in the targeted areas increased.</li> <li>• Lands become more protected especially in the sensitive geopolitical areas.</li> <li>• 2,300 farming families became more food secured and achieved better livelihood.</li> </ul>

## 6.2 Proposed Project: Improving the small ruminants feeding and management environment in Nablus Governorate (sheep and goats)

<b>Project Title</b>	<b>Improving livestock management and feeding system the in Nablus Governorate.</b>				
<b>Project Duration</b>	36 months				
<b>Estimated Budget</b>	The project will support small to medium size livestock breeders to improve the rearing and management environment of their sheep and goats to lives under hygienic, healthy and provided with more nutritive feeding system. Up to 21,250 heads of sheep and goats in 20 localities in Nablus Governorate. The total budget is estimated at around US \$ 211,408.				
<b>Stakeholders</b>	The project stakeholders will be the Ministry of Agriculture (MoA), local and international agricultural associations and NGOs as well as the community agricultural cooperatives. The main role for the general directorates of livestock and veterinary in MoA.				
<b>Targeted Areas</b>	The project will target 20 localities in Nablus Governorate as follows:				
	<b>No.</b>	<b>Locality</b>	<b>No. of targeted barracks/ shed</b>	<b>No. of sheep and goats / locality</b>	<b>No. of targeted heads</b>
	1	Talluza	15	1,050	750
	2	Furush Beit Dajan	33	7,289	1,650
	3	Beit Dajan	20	1,240	1,000
	4	Duma	17	1,060	850
	5	Qabalan	12	740	600
	6	Beit Imrin	20	1,370	1,000
	7	Asira ash Shamaliya	13	805	650
	8	Salim	28	2,700	1,400
	9	Madama	8	520	400
	10	Burqa	8	580	400
	11	‘Ein Shibli	14	1,200	700
	12	Beit Furik	37	8,700	1,850
	13	An Nassariya	38	8870	1,900
	14	Al ‘Aqrabaniya	20	1,380	1,000
	15	Aqraba	47	11,010	2,350
	16	Beita	14	870	700
	17	Rujeib	23	3,950	1,150
	18	Sabastiya, Nisf Jubeil & Ijnisinya	25	1,425	1,250
	19	Tell	18	1,760	900
	20	Yasid	15	1,050	750
		<b>Total</b>	<b>425</b>	<b>57,569</b>	<b>21,250</b>
	The targeted localities host almost 60% of the sheep and goats numbers in Nablus governorate. Thus the project will be of considerable impact if it is developed into a comprehensive proposal.				

<b>Beneficiaries</b>	The project will serve up to 21,250 heads of sheep and goats (36% of the sheep and goats of the targeted communities) in 20 communities of Nablus Governorate, through supporting 425 livestock breeding/ herding families. Accordingly, up to 2,970 persons are going to benefit directly from the project.
<b>Project Description</b>	<p>Nablus hosts more than 13% of sheep and goats of the West Bank. This project will assist the livestock (small ruminants) keepers to manage and feed their flocks properly and in better way, including better feeding and husbandry environment. This will reflect on improving the quality and the quantity of meat and milk production and on the net profit which will be generated by the targeted livestock breeders.</p> <p>It is clear that the livestock sector is negatively affected by the limited productivity and fertility of the existing breeds, low level of livestock management systems (feed, veterinary and breeding and insemination system, husbandry environment) and the one of the main challenges is the soar in feed prices which form up to 70% of the production cost. Thus, the farmers need special care, support and building their capacities in practicing better management system. On the other hand, the limited accessibility to the rangelands which imposed by the occupation authorities, this also contributes in increasing the husbandry and production costs of sheep and goats.</p> <p>This project is going to reply to these obstacles through creating improvement, awareness and better practices program for the targeted farmers' flocks. This model will be presented to other stakeholders to scale it up in Nablus governorate and scaling it towards other Governorates.</p>
<b>Project Description</b>	The project life is going to be for 3 years to have the opportunity to follow up and measure the impact of practiced interventions and to come up with solid results for all stakeholders, mainly to MoA to be adopted by its planning, research and extension units.
<b>Project Objectives</b>	<ul style="list-style-type: none"> <li>• To encourage small ruminant's farmers' to keep their flocks and increasing their profitability, especially in the vulnerable areas in area C.</li> <li>• To support the livestock breeders to improve the living environment of their flock to become healthier and growing in hygiene and safe conditions.</li> <li>• To build the capacities of targeted livestock breeders to adapt suitable documentation system for their sheep and goats.</li> <li>• To improve the breeds and fertility of the existing sheep and goats.</li> <li>• To improve the nutritional status of the farmers' flocks.</li> <li>• To increase the quality and the quantity of produced milk and meat per head.</li> <li>• To improve the livelihood of the targeted families.</li> <li>• To encourage the participation of existing agricultural cooperatives.</li> </ul>

<b>Project Activities</b>	<ul style="list-style-type: none"> <li>• Announcing the launch of the project with related Ministries (MoA, and PWA and local authorities) and other NGOS, CBOs (agricultural cooperatives).</li> <li>• Communicate with local authorities in the targeted communities.</li> <li>• Form project community committee. The General Directorate of livestock and veterinary and agricultural cooperatives will be the main partners.</li> <li>• Announcing about the project activity in public places of targeted communities and receive the applications.</li> <li>• Determining beneficiaries according to the project selection criteria (barracks rehabilitation, artificial insemination, better feeding system, and new management and documentation systems, improve the existing model).</li> <li>• Conducting improvement program: <ul style="list-style-type: none"> <li>a. Rehabilitating 425 livestock barracks, each barracks will host up to 50 heads.</li> <li>b. Provide artificial insemination for 5000 heads of sheep.</li> <li>c. Develop new mixed of feed ration to the different ages and groups of sheep and goats for milk and meat production with the adoption of local resources to reach cheaper and more nutritive ration.</li> <li>d. Develop recoding and documenting system for the flocks to ease their management.</li> <li>e. Continue demonstrating the silage experiments to measure its impact in reducing the feed costs.</li> <li>f. Building the farmers capacities in all the project interventions (on cooperative levels).</li> </ul> </li> <li>• Follow up the implemented activities by the targeted beneficiaries and re-pay them according the achieved progress in the field work.</li> <li>• The project technical committee will approve the accomplishment of the construction works to finalize the project.</li> <li>• Preparing the final reports and disseminating the results.</li> </ul>
<b>Expected Results</b>	<ul style="list-style-type: none"> <li>• 21,250 heads of sheep and goats become living and better hygienic and healthy conditions.</li> <li>• The production and profitability of 425 sheep and goats farms increased, more profitable and sustained.</li> <li>• The developed recording and documentation systems in the targeted farms improved and become practiced.</li> <li>• 5000 heads of sheep had managed to deliver newborns with better health, breeding and genetics.</li> <li>• The production of targeted farms from newborns, meat and milk increased considerably.</li> <li>• The farmers and their cooperatives started practicing the silage technology to reducing the feeds costs.</li> <li>• The obtained results shared with other stakeholders to encourage the duplication of succeeded interventions in other areas.</li> </ul>

## References

- Abu A'yash, A, etal. 2007. 'Surveillance and Classification of Palestinian Forest Trees.' Prepared by the Arab Organization for Agriculture Development. Ramallah. Palestine.
- Ajlumi, S. 2003. 'The Palestinian Economy and the Second Intifada.' Journal of Palestinian Studies Vol. 32, No. 3.
- Applied Research Institute - Jerusalem (ARIJ). 1995. 'Environmental Profile for the West Bank' Vol. 1: Nablus District. June, 1995. Nablus, Palestine.
- Applied Research Institute - Jerusalem (ARIJ). 2004. 'Monitoring Israeli Colonizing Activities; Outposts - the unripe settlements' Available at: [http://www.poica.org/editor/case\\_studies/view.php?recordID=337](http://www.poica.org/editor/case_studies/view.php?recordID=337).
- Applied Research Institute - Jerusalem (ARIJ). 2007. 'The Status of Environment in the West Bank and Gaza Strip.' Ghattas, R & Hazieneh, H. Chapter 10: Flora and Fauna. Bethlehem, West Bank.
- Applied Research Institute - Jerusalem (ARIJ) – GIS Unit. 2008. 'Geo-informatics database.' Geo-information Department, ARIJ, Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ). 2010. 'Monthly Reports Database; Nablus, Palestine' June, 2010.
- Applied Research Institute - Jerusalem (ARIJ) – GIS Unit. 2011a. 'Geo-informatics Database.' Geo-informatics Department, ARIJ, Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – GIS Unit. 2011b. 'Land use, landcover analysis, year 2010 with high resolution/0.5metre pixels' Geo-informatics Department, ARIJ, Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – GIS Unit. 2011c. 'Nablus, Palestine; 2008 - 2010.' Geo-Informatics Department; Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – GIS Unit. 2011d. 'The Geo-informatics Department Israeli Settlements Database'; Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – GIS Unit. 2011e. 'The Geo-informatics Department Israeli Checkpoints Database'; Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – UMD. 2011a. 'Israeli Violations in the occupied Palestinian Territory Database', ARIJ 1994-2011; Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – UMD. 2011b. 'Settlements Database.' Urbanisation and Monitoring Department. Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ). 2012. 'Water and Environment Research Department Database.' Bethlehem. Palestine.
- Applied Research Institute - Jerusalem (ARIJ) – WERU. 2012. 'Water and Environment Research Department database; selected indicators.' Bethlehem, Palestine.
- Applied Research Institute - Jerusalem (ARIJ) & Spanish Center for New water Technologies (CENTA), 2010. "A Proposed Environmentally Sound Wastewater Management System for the West Bank."
- Applied Research Institute – Jerusalem (ARIJ). Water and Environment Research Department (WERD) database 2013.
- Applied Research Institute – Jerusalem (ARIJ). (2012). The Water Regime of the Israeli Occupation in the West Bank, by Matthew Richard and Jad Isaac, 2012.
- Applied Research Institute – Jerusalem (ARIJ). (2010). The Applied Research Institute - Jerusalem (ARIJ) refutes the report of the Israeli occupation authorities, which accuses the Palestinians polluting the environment and water sources, 2010.
- EWASH. 2011. Israel's violations of the International Covenant on Economic, Social and Cultural Rights with regard to the human rights to water and sanitation in the Occupied Palestinian

Territory.

- Freedman, D; Myers, A.; Beck, A. 2003. 'Eerdmans Dictionary of the Bible.' Wm. B. Eerdmans Publishing.
- Group Christian Volunteers (GVC) & Food and Agriculture Organization (FAO). 2011. 'GVC/FAO Database; Water Availability in Area C' retrieved January 2012 from: <http://www.gvcfao-database.org/>.
- International Committee of the Red Cross (ICRC). 1949. 'Geneva ... Time of War (Fourth Geneva Convention)'. 12 August 1949.
- Ministry of Health (MoH) & the Palestinian Health Information Center (PHIC). Annual Health Report Palestine 2012. July, 2013.
- Ministry of Higher Education (MOHE). 2014. 'Schools Statistics of 2013/2014.' Ramallah, Palestine.
- Ministry of Tourism & Antiquities (MoTA). 2012. Planning Unit Database for the year 2011. Ramallah. Palestine.
- Ministry of Tourism and Antiquities (MoTA). 2012. 'Personal contact between ARIJ and the MoTA for data-sharing purposes.'
- New York Times. 2011. 'No Chance of Peace.' May 18th 2011. Available at: <http://www.nytimes.com/roomfordebate/2010/09/01/negotiating-with-the-israeli-settlers/no-chance-of-peace-with-settlements-around>.
- Palestinian Central Bureau of Statistics (PCBS), World Food Programme (WFP) & Food and Agriculture Organization (FAO). 2010. 'Average Food Prices, 2005-2009'. Ramallah, Palestine: 2005 - 2009.
- Palestinian Central Bureau of Statistics (PCBS). 1997. 'Population Census' final results by locality- 1997.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 1998. Agricultural Statistics - 1997/98'. Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2009a. Census Final Results – Summary (Population, Buildings, Housing, Establishments) - Nablus & Al Aghwar Governorate. Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2009b. 'Palestine in Figures 2008.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2009c. 'Palestinian Family Health Survey, 2008: Final Report.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2009d. 'Agricultural Statistics; various data' Ramallah, Palestine: December, 2009.
- Palestinian Central Bureau of Statistics (PCBS). 2009e. 'Population, Housing and Establishment Census 2007, Final Results - Housing Report – Nablus Governorate.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2009f. 'Population, Housing and Establishment Census 2007. Main Indicators by Locality Type.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2009g. Agricultural Statistics- 2007/8' Dec. 2009; Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2011a. 'Palestinians at the end of the year.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2011b. 'Agricultural Census-2010.' Ramallah, Palestine.
- Palestinian Central Bureau of Statistics (PCBS). 2014a. 'Labor Force Survey, Annual Report of 2013 .Ramallah, Palestine.
- PCBS, FAO, UNRWA, WFP. 2012. Socio-economic and Food Security Survey (SEFsec): West Bank and Gaza Strip, Palestine.

- Palestinian Central Bureau of Statistics (PCBS). 2014b. 'Labor Force Survey: (January-March, 2014) Round (Q1/2014)). Press Conference on the Labor Survey Results'. Ramallah, Palestine.
- Palestinian Hydrology Group (PHG). 2011. 'Water Master Plan for Nablus.'
- Palestinian National Authority (PNA). 2010. 'National Strategy for Solid Waste Management in the Palestinian territory (2010-2014).' Ramallah, Palestine.
- Palestinian Water Authority (PWA). 2007a. 'Water Quality in West Bank Report.' Ramallah, Palestine.
- Palestinian Water Authority (PWA). 2007b. 'Water Supply in the West Bank.' Ramallah, Palestine.
- Palestinian Water Authority (PWA). 2009a. 'The Palestinian Water and Wastewater sector, Basic needs and Development - Ongoing and proposed projects by Governorates.' Ramallah, Palestine.
- Palestinian Water Authority (PWA). 2009b. 'Water Supply and Consumption for the West Bank 2007.' Ramallah, Palestine.
- Palestinian Water Authority (PWA). 2011. 'Water Information System.' Ramallah – Palestine.
- Palestinian Water Authority (PWA). (2012). Annual Water Status Report 2011. Ramallah-Palestine
- UN OCHA. (2012).List of water structures in the West Bank demolished by Israel from 2009 to 2011 from the website :<http://www.ewash.org/en/?view=79YOcy0nNs3Du69tjVnyyumlu1jfxPKNuunzXkRpKQN7JeJ8TDTG>
- UNRWA/UNICEF. 2010. Food Security and Nutrition Survey of Herding Communities In Area C Joint UNRWA – UNICEF –WFP Household Survey.
- WFP/ FAO/ PCBS. 2009. Socio-Economic and Food Security Report West Bank. 2009.
- WFP/ FAO/ PCBS. 2011. oPt 2010 Socio-Economic and Food Security Survey: West Bank and Gaza Strip, occupied Palestinian territory.
- WFP/ARIJ. 2010. Socio-Economic and Food Security Atlas: in the occupied Palestinian territory. February, 2010 Bethlehem. Palestine.
- Nablus Municipality. (2012). Data Related to the Existing Sewage System.
- Applied Research Institute - Jerusalem (ARIJ) & Spanish Center for New water Technologies (CENTA), 2010. "A Proposed Environmentally Sound Wastewater Management System for the West Bank."
- The Joint Service Council for Solid Waste Management of Nablus Governorate, 2012.
- United Nations- Office for the Coordination of Humanitarian Affairs – occupied Palestinian territory (OCHA- oPt). (2012). The Humanitarian Impact of The Taken Over Of Palestinian Water Springs Bu Israeli Settlers, March 2012.